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OUTER CONTINENTAL SHELF OIL AND GAS MORATORIA

ORIGINAL Mf119 COMPLETED

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON THE

IMPACT OF MORATORIA ON OCS LEASING IN FEDERAL WATERS
ADJACENT TO THE COASTLINE OF THE STATE OF CALIFORNIA

SEPTEMBER 17, 1985

Printed for the use of the
Committee on Energy and Natural Resources

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OUTER CONTINENTAL SHELF OIL AND GAS MORATORIA

TUESDAY, SEPTEMBER 17, 1985

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 9:30 a.m., in room SD-366, Dirksen Senate Office Building, Hon. James A. McClure, chairman, presiding.

Present: Senators McClure, Warner, Murkowski, Nickles, Hecht, Johnston, Bumpers, and Rockefeller.

Also present: Jeffery D. Arnold, professional staff member; and James T. Bruce, counsel for the minority.

OPENING STATEMENT OF HON. JAMES A. McCLURE, A U.S. SENATOR FROM THE STATE OF IDAHO

The CHAIRMAN. Today this committee will be hearing testimony on OCS leasing moratoria with particular interest focused on recent negotiations between Secretary of the Interior Don Hodel and members of the California congressional delegation over a long-term moratorium off California.

We will be hearing testimony from members of that delegation as well as Secretary Hodel on the matter and on their impressions of the wisdom of such a moratorium.

Other witnesses will address energy exploration, environmental concerns, tourism, fisheries, technical aspects of moratoria, and the employment implications of a long-term ban on needed oil and gas exploration and production.

Because there is a glut of oil on the world market today, many believe the energy crisis is over, and we can relax our efforts toward resolving energy supply problems. This is, in my view, a serious misconception with frightening implications. Shortages of energy remain a potential threat to the economic survival and to the very security of our Nation.

As most of these in attendance know, I have long been a strong opponent of moratoria anywhere on the OCS, not just off California. I believe that the resources of the Outer Continental Shelf has an important and indeed necessary role in meeting this Nation's energy security and energy independence goals.

Moratoria wherever implemented would severely cripple any hope that this Nation has of even staying level with the current rate of imports, let alone reduce them. The Energy Information Agency has estimated that our petroleum imports will double in the next 10 years, and our domestic production will be reduced by half.

Allowing the establishment of OCS moratoria means that the potential for finding and developing new domestic energy resources to improve this picture would be further inhibited.

U.S. proved reserves of oil and gas have shrunk by nearly one-third since the early 1970's, and offshore production has dropped about 35 percent over the same period.

The Western Oil & Gas Association estimates that more than three-fourths of the oil this country will need by the year 2000 still must be found, and it is believed that up to 60 percent of those discoveries will be on the Outer Continental Shelf.

Unfortunately, developing OCS resource is a difficult and time consuming process. Moratoria certainly doesn't make it easier. For example, the typical lead time for developing the OCS resource off California from lease to production can range from 7 to 16 years.

Added to the time factor, the Minerals Management Service of the Department of the Interior tells me that fully 85 percent of all exploratory holes are dry, and many of those that aren't dry can't be developed into commercially viable wells. MMS says only about 3 percent of all exploratory wells ever become commercially useful. Moratoria, particularly a long-term proposal such as was contemplated for California, would arbitrarily discard extremely valuable areas of potential energy resources from timely consderation for development, even though the current 5-year process has provided for the complete participation of all interests.

Although the current OCS leasing planning process has been controversial, it has in fact been an effective system for developing the energy resources of the OCS. Allowing further OCS moratoria would discard this system of careful review, and place our energy future in jeopardy. After all, how can we virtually shut off a potential of 610 million barrels of California OCS petroleum without doing great damage to an already critical situation?

The moratorium understanding developed by Secretary Hodel and the California Congressman has had a positive side effect that was initially unanticipated. It allowed the Secretary to go a long way toward meeting the consultation requirements of the Outer Continental Shelf Lands Act and toward the type of consultation envisioned by Congressman Sid Yates, by distinguished ranking member Bennett Johnson, and I, as we wrestled with the Interior appropriations bill last year.

Secretary Hodel spent most of August in California talking with as many people as possible, and came away much to my satisfaction with an understanding that the tentative agreement on a 15-year moratorium was flawed and should be rejected.

I know the Secretary wishes to resolve this issue, and this committee will be awaiting his testimony with interest. I believe this hearing will develop a strong record on OCS leasing moratoria and the conclusions derived from the testimony will lead us on an appropriate energy security path.

I understand that Senator Cranston is delayed in arriving, and I don't see Senator Wilson here. I have not heard from him this morning. Mr. Panetta also, I understand, is late. Mr Dannemeyer just walked in, just as I was about to get to his name.

Congressman, you are the first one on the list, if you want to go first. You are the first one on the list that is here. Why don't we ask that each of the California representatives who are here take their place at the witness table, and we will go through them, go through the list in the order in which they appear on the witness list.

STATEMENT OF HON. WILLIAM E. DANNEMEYER, A U.S. REPRESENTATIVE FROM THE STATE OF CALIFORNIA

Mr. **DANNEMEYER**. Mr. Chairman and members, I appreciate this opportunity of giving you my thoughts on the expansion of offshore drilling in the State of California. I have a statement here that I would like to submit for the record.

The **CHAIRMAN**. It will be placed in the record in full. You are invited to summarize.

Mr. **DANNEMEYER**. I would like to summarize my comments.

The **CHAIRMAN**. That is, if the summary is shorter than the statement.

Mr. **DANNEMEYER**. I see you have been at this business for a few days, Mr. Chairman.

First off, let me observe that what is going on here really is a replay of the November 1980, election. It has been going on each year in the House of Representatives where those who objected to the election of Ronald Reagan as our President in 1980 and his declaration of energy independence for the country have sought to establish another agenda, namely, the continuation of energy dependence.

A means by which they have achieved that is to annually attach to the appropriations bill moratorium on expansion of offshore drilling in California. Bear in mind that this moratorium has never come to a vote in the House. It has been done not in the Policy Committee in the House of Representatives dealing with energy matters, but in the Appropriations Committee.

And that is not without reason, because in my view they don't have the votes to attach the moratorium in the Policy Committee, but they barely have the votes in the Appropriations Committee. It is almost humorous when you listen to the controversy over this issue, because when you hear the rhetoric and read it in the paper, you almost get the impression that we are talking initially about drilling off the California coast for the first time.

I would venture to guess that if we took a poll among the 535 Members of Congress, that probably half of them would think that we are talking about drilling off of California for the first time.

Nothing could be further from the truth. We have 15 platforms in existence off of the California coast today, and Federal tidelands contain some 819 wells. The production in the OCS area beyond three miles commenced over 25 years ago, and real production began in 1968.

We have been drilling off the coast of California in the State tidelands for over 90 years. We have 16 platforms in State tidelands area containing 3,684 wells. So any suggestion that this is an initial question on drilling off the coast of California is just blowing smoke in our face.

I want to also observe that the delegation from California is split. We have 45 members in the Congressional delegation. We have 17 of us representing coastal districts and 28 inland districts. Of the 17 in the coastal districts, we have a total of 11, or rather in the coastal area—I take that back.

In the coastal area, we have 18 members and 27 inland. And the 27 inland members, 3 of them support offshore drilling, and on the coastal area 11 of us support offshore drilling. Of the 45 members of the California congressional delegation, 14 of them all together, 31 percent of our total delegation are in support of offshore drilling.

One of the arguments that we have heard from time to time relates to job creation. We believe that this opportunity for expansion of offshore drilling in California has the potential of adding about 80,000 jobs in our State. One of the arguments that we have heard is that it detracts from fishing.

Well, our friends in the Gulf of Mexico have told us on many occasions that it actually enhances fishing in the Gulf of Mexico in that the platforms serve as platforms for artificial reefs and as such the fishermen in that area of the world actually fish the platforms because the fishing is better.

So far as tourism is concerned, we have seen data from the county of Santa Barbara which contains many offshore platforms and many wells, and the only detriment to income from tourism off the Santa Barbara coast has occurred from the gas lines which took place in 1973 and 1979.

In other words, there is nothing to indicate that the existence of platforms drilling off the California coast detracts from the tourism income that the people in our State rely upon for a vital part of the economy.

As far as the visual concept is concerned, we have curvature of the Earth that makes clear that if a platform is more than 12 miles at sea, standing on the beach you are not going to be able to see it. Some of the platforms, of course, are within that 12-mile range, and of course you can see them from the beach.

I am not going to suggest that the platform is going to win a beauty contest, but as a Member of Congress, I would much rather explain to parents who have a son who live on the coast of California while there is a drilling platform off the coast of California, that I want to explain to those parents why we need their son to come into the military service to possibly fight on the sands of the Middle East to preserve a resource that some of us in our State are unwilling to develop.

And finally, let me make this observation about the matter of the statement of environmentally sensitive areas. I am intrigued by some of the comments of my colleagues from California who say that certain areas of the coast in California are so environmentally sensitive that, well, we just can't drill there, and I consider that every mile of our coast line is ecologically sensitive, and we in southern California, that is, from the area of Santa Barbara south, we have offshore platforms in Santa Barbara, Ventura, Long Beach, Huntington Beach. That is where all of this offshore platform drilling that I described earlier is taking place.

And notwithstanding the existence of this offshore activity, we have millions of people using our beaches each summer. And to somehow suggest that in areas of central and northern California where there are no platforms and there is no drilling at this time, that somehow those areas of the beach of California are so ecologically sensitive that we shouldn't be drilling there, that smacks a little bit of elitism to me, and I resent that.

I am a southern Californian, and I have been in central and northern California on many occasions, and I consider every mile of our beach ecologically sensitive, and I believe that we can both protect our environment and produce offshore platforms and drill and receive the revenue from that money that would be coming from that activity, and not do violence to the environment at the same time.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Dannemeyer follows:]

STATEMENT OF THE HON. WILLIAM E. DANNEMEYER

ON CALIFORNIA OCS MORATORIA

Senate Committee on Energy and Natural Resources

September 17, 1985

Mr. Chairman, you are to be commended for scheduling this timely hearing on the issue of a moratorium on development of the California Outer Continental Shelf. I come to this subject as a native of Southern California, as a Representative of an Orange County Congressional District and as a member of the House Committee on Energy and Commerce where I am the Senior Republican on the Subcommittee on Fossil and Synthetic Fuels.

Several points will be emphasized:

*** The Outer Continental Shelf is a national resource.

*** Decisions on its use must reflect our need for energy security, reducing the trade deficit, job opportunities, and economic growth. These are to be balanced with legitimate effects on the coastline.

*** The history of offshore development in California shows that OCS activity can be made compatible with other interests.

*** This cannot be done if just a few members of any one state's delegation are consulted, particularly those along the coast.

*** Extending the moratoria is not in the national interest.

Those who favored the July, 1985 preliminary agreement now argue that the lack of a final agreement requires another moratorium. This is not true. First, it is important to note that the preliminary agreement is deficient: only those opposed to offshore leasing were consulted and the energy potential of the limited acreage available for leasing under the agreement is poor. A majority of Republican members of the California delegation expressed these views in a letter to President Reagan on July 31, 1985. Similar concerns have been raised by Energy Secretary John Herrington, himself a Californian. I am pleased that Secretary Hodel has concluded that the energy potential of the 150 tracts in the preliminary agreement is insufficient, indicating that they are estimated to contain from only five to seven percent of the resource of the moratorium area.

While our constituents no longer wait in long gasoline station lines, as we did just a half dozen years ago, the nation remains dependent on foreign sources for almost one-third of our daily oil needs. Our state consumes more gasoline than any other state in the union, and while we have significant production from state tidelands and onshore fields, California is a net importer of oil. We would be shirking our civic duty if we succomb to those who would have us blindly turn our backs on contributing to developing the energy our country needs to grow and prosper.

It is particularly incongruous that a moratorium is again advanced as the framework for OCS policy at a time when the headlines pronounce that the trade deficit is so large that a crisis confronts us in the trade arena.

The trade problem is indeed real and so is the role of oil imports in contributing to its magnitude. We ran up a $70 billion trade deficit in 1983 when oil imports were $53 billion; for 1984 it was a record $123 billion trade deficit with oil imports at $60 billion; and a $150 billion deficit is forecast for this year with oil imports running at $45 billion.

These numbers translate into lost job opportunities. Every one billion dollars in the trade deficit means the loss of 25,000 to 40,000 jobs. In addition, statewide oilfield employment has already declined one-third since 1982. A report concluded that up to 80,000 California jobs could be created under a leasing program. The adverse job impact of OCS moratoria is further substantiated by a recent survey of 37 ocean industry firms in California undertaken at the request of the Governor's office. It found that the 37 firms have reduced employment by 55 percent since 1980, which means 12,102 individuals.

Oil imports will double in the next decade without new sources. The geological data show that the California OCS is one of the most promising new sources in the country, yet for the past four years Congress has tacked a moratorium on the annual Interior Department appropriations bill.

The California OCS is divided into over 10,000 tracts, of which 6,466 are in the moratorium area. The Interior Department indicates that there is particular industry interest in about 900 tracts. The agreement, however, would only permit leasing of 150 tracts, all but a few of which are of low potential.

Under the preliminary agreement leasing would occur off Southern California with 22 tracts in the Santa Monica Bay, 4 off Long Beach, 6 off Newport Beach and 5 off Oceanside. While I believe that development can take place without undue risks, it is patently unfair to open up these areas while completely excluding development in the Santa Cruz, Bodega and Point Arena basins in the central part of the state. The geology of these basins is similar to that of the Santa Maria Basin, where major discoveries have been made in recent years. Industry has indicated these basins may contain up to 5 billion barrels of oil while Interior puts the figure at 1 billion barrels, either of which represent a significant potential resource base.

You have no doubt heard from those who raise objections on the grounds of oil spills, visual pollution, fishing, tourism and air quality, among others. It is important that these be assessed on the basis of facts, not fiction. A careful review of the facts will show that perceived risks far outweigh the plausible ones. Furthermore, development is already taking place offshore California in a manner compatible with other values and interests.

On oil spills, the data from the National Research Council puts offshore platforms at the bottom of a list of nine sources of oil pollution in the oceans, at one to two percent. Oil tankers, which carry imported oil, are first at 45 percent. EPA, the Coast Guard and the Interior Department enforce strict regulations on this subject. Industry has strong incentives to run safe operations since tens of millions of dollars are at risk in a single platform, not counting the unquantifiable value of human lives and public opinion. In 1984, total U.S. OCS production was 368 million barrels and only 670 barrels were spilled. In the California OCS in 1984, 30.5 million barrels of oil were produced and less than 10 were spilled; 9 and one-half were recovered.

On visual concerns, there is a misconception that the coast would be covered with drilling platforms in a short time. In fact, modern drilling technology allows dozens of wells to be drilled from a single platform. The pace of actual drilling will be a measured one with work spread out over many years since there are long lead times involved and economics to consider. Only 20 percent of the area offered for lease to date in the California OCS has actually been leased and only 39 percent of that leased has had exploratory drilling. In this connection, at a distance of 12 miles, a person on the beach cannot see a platform twelve miles out. The bottomline is whether this concern alone should drive policy. Given the compelling need for energy development, to elevate it to paramount status would be the tail wagging the dog.

As a fishing enthusiast I listen with care when anyone raises concerns about how policies will impact commercial and recreational fishing. In fact, the impact on fishing should be moved from the anti-leasing to the pro-leasing list of arguments. The Interior Department's own work outlines how offshore platforms act as artificial reefs for the breeding of fish. Catches in areas with energy development, such as the Gulf of Mexico and the North Sea in Great Britain, have increased.

Tourism is very important to my Congressional District and to California. I joined the Congressional Travel and Tourism Caucus because I recognize its importance to our economy. In fact, the threat to tourism from an energy shortage is far greater than the risk of harm from energy development. The Santa Barbara Channel, for example, contains many offshore platforms in close-in state waters and in the federal OCS beyond the 3-mile limit, yet is a major destination of tourists despite the tragic spill in 1969. The Santa Barbara Chamber of Commerce stated in response to a written inquiry that "we cannot find that the visibility of the platforms has caused any reduction in tourism."

There are those who would have you believe that the issue before us is whether the California coast should be tapped for the first time to develop energy resources and that this will shock the local economy and way of life, including tourism. In fact, the first offshore well in the United States was off a pier in California in 1894 at Summerland, near Santa Barbara. The federal program began in 1954. Since the inception of California development, over 4,500 wells have been drilled in federal and state waters (over 3,600 in state waters). Today there are 16 platforms in the OCS and 15 platforms in state tidelands. This development takes place day in and day out in such areas as Santa Barbara, Ventura, Long Beach and Huntington Beach. I checked on how many visitors go to the beaches in these areas and here are the estimates provided:

Santa Barbara	1.45 million visitors annually
Ventura County	1.20 million visitors annually
Long Beach	8-10 million visitors annually
Huntington Beach	12 million visitors annually

It is difficult to argue that oil platforms will have a dampening effect on tourism when millions of people flock to the beaches of the areas with considerable offshore development, much of it in nearby state waters. On this score as on others, offshore development is consistent and compatible with use of the coastline. California is living proof of it today.

As a member of the Subcommittee on Health and the Environment, which has jurisdiction over the Clean Air Act, I can speak to the air quality issues. We must balance and manage the air emissions of OCS operations with economic growth just as we do with other industries. Governor Deukmejian's administration has been very successful in placing stringent air quality conditions on previous OCS lease sales. Given the Governor's strong commitment, reaffirmed in the statement issued after the recent meeting on the preliminary agreement, I am confident of more than adequate protection. Furthermore, the House-passed Interior appropriations bill for FY1986 contains $1.5 million for the Minerals Management Service (MMS) to participate in the South Central Coast Cooperative Aerometric Monitoring Program. This project will monitor emissions from offshore operations and analyze their impact on air quality in the Los Angeles Basin.

I appreciate the sensitivities of colleagues with vocal anti-drilling groups in their districts. Yet there are 17 coastal districts in California, a minority of the 45 Congressional Districts in the state, and this issue is one which impacts the entire state and nation. As such, it is a decision to be made with the participation of all affected interests.

You are well aware that the OCS Lands Act sets forth a process to determine leasing in a careful and complete manner. It is the proper means of looking at individual tracts and evaluating both the energy potential and environmental risk. Conditions can be attached to lease sales in response to legitimate concerns. This is much more rational than thinking that these interwoven matters can be negotiated by 45 House Members and 2 U.S. Senators.

The moratorium should be allowed to expire and the process under the law should go forward. As is now the case, sensitive tracts are reviewed and removed, as needed, on a case-by-case basis. Wholesale roping off of acreage, whether by an appropriations bill or some delegation agreement, is unwarranted.

In the final analysis, we must face the reality that there are two systems of governance in our society: one is the Congress and the President on an elected basis and the other is the courts. We face the very real prospect that either side involved in the OCS debate, whether the oil industry or coastal interests, will seek judicial relief if the legislative outcome is not to their liking. We do not have to relish the thought of court action to acknowledge its existence. Given the length of time that litigation could take, we cannot afford a legislative stalemate, which would only delay things even more. Not until court challenges are resolved could leasing occur and it would be up to ten years after that before production comes on line.

I trust you will conclude, as I have, that it is both improper and impractical to sit down with a handful of members of one state's delegation to determine the fate of a resource to which the nation rightfully lays claim.

The CHAIRMAN. Thank you.

Congressman Lungren.

STATEMENT OF HON. DANIEL E. LUNGREN, A U.S. REPRESENTATIVE FROM THE STATE OF CALIFORNIA

Mr. LUNGREN. Thank you, Mr. Chairman.

My name is Dan Lungren. I am the Congressman from the 42d District of California. My entire district is coastline from Palos Verdes, Long Beach-Los Angeles Harbor, Long Beach, Huntington Beach, Seal Beach, Sunset Beach.

I come here with a little different viewpoint than many of my colleagues who will appear before you who represent coastline. I must express my strong opposition to the so-called agreement—preliminary or otherwise—between the Secretary and certain members of the California delegation.

I oppose it on procedural grounds. I oppose it on substantive grounds, and I would like to speak here today about the substantive grounds.

It seems to me the best thing we can do is follow the orderly OCS leasing process as called for in the OCS Land Act of 1978 and the current 5-year lease sale proposal. In accordance with that act, it seems to me it is important for us to identify the level of California's OCS resource production that will make a significant contribution to the energy needs of this country.

As I think is well established now, the so-called agreement only gives us somewhere between 5 and 7 percent of potential recovery of that energy resource which is offshore California. It seems to me instead of leasing those identified tracts, what we ought to do is identify that percentage of the total potential that is out there that we can accept as a Congress, that we can accept as the California delegation, as being an acceptable level, a substantial level of contribution to the needs of this country, and then try and identify 150 tracts or something in that neighborhood which reached that particular number, taking into consideration those tracts that are most prospective, if I may use that term, in terms of potential, and looking at those which appear to be most sensitive from an ecological standpoint.

Many Californians are concerned about the environment and the effect of OCS drilling on tourism and fishing. My colleague, Mr. Dannemeyer, has spoken to those. But let me talk about another thing, which is, the majority of oil used in California is oil that is transported to our State by tanker traffic. And so I think that is what we have to realize. If we don't do what we can do for offshore drilling, we are probably going to have to rely more in California on tanker traffic.

And what are the figures on oil seepage or oil-related environmental damage? River runoff, natural seepage, tankers, and other modes of transportation account for over 76 percent of the oil in the ocean, whereas U.S. offshore oil production accounts for only five one-hundredths of 1 percent of the oil in the ocean.

The tanker traffic that I have talked about, that carries the majority of the oil used by southern Californians is far more dangerous to the environment than OCS production. In fact, according to

MMS and the Coast Guard, since 1970, over 2 million barrels of oil have been spilled from tanker accidents in U.S. waters compared with only 840 barrels lost from OCS activity.

My fear from an environmental standpoint is that without additional activity in those areas—that we could identify of a substantial nature—tanker traffic in southern Calfornia is most likely to increase, and with it we will have a higher risk of oilspills.

I attended some of the hearings that the Secretary had in California, and people who were legitimately concerned, sincerely concerned about the environment would always talk about the damage done to the environment by major oilspills caused by tanker traffic.

Now, what I am trying to say to you, Mr. Chairman, is, we have to realize this is not a risk-free world, that if you don't have some offshore production, and you rely more and more on foreign oil, and we rely on oil from the North Slope and other places for our production in California, we are going to have increased tanker traffic, and that, in fact, is going to be far more dangerous to the concerns of tourism and fishing and just to general environmental concerns than anything else.

Mr. Chairman, I come to you as a native Californian. I was born—I thought it was 1½ blocks from the ocean, which is what I said over on the House side. I was back home, and realized it was 2½ blocks from the ocean. So I stand corrected on that. But I spent all my life near the beach.

The distinguished senior Senator from California is well known for his recreational exercise of running on tracks throughout California. I don't do that. I body surf. That is my way of having fun. That is my way of exercise. That is what I have taught my three children to do. They enjoy it.

I don't want to see the ocean spoiled, and I will take a back seat to no one in California or anywhere else about concern for the environment, and I resent the fact that those of us who believe that there is to be as a necessity additional offshore drilling in California are not concerned about the environment. I don't think that is the issue at all.

I would rather look out on the ocean and not see a single thing out there—maybe a few boats passing in the night, maybe something that might disturb my viewpoint. But I would rather not see anything out there. I don't want to see these, as my colleague says, works of art sitting out there. I'd rather be able to see nothing. As I look in my office in Long Beach, I look at the *Queen Mary*. I see the *Spruce Goose*.

I see the active Port of Long Beach, the beach area, and I can see Catalina on a nice, clear day, and I wish there were nothing else out there; but this is the real world, and I know that there are options, and I know one of the options is, if we don't have more offshore oil drilling as a part of the total contribution to our energy resource needs in this country, I am probably going to see more tankers out there, and I am going to see a greater difficulty in the future with respect to spills.

My home area of Long Beach includes the Port of Long Beach. We have for oil island there, far within the lands that you are talking about. I mean, I can almost walk to one of them. As a matter of fact, you can now if you go to the major marina in downtown Long

Beach. There are 250 wells on each one of those islands—a total of 1,000. We pump out oil every single day. That oil in royalties goes to every single congressional district in California.

We have had years in which the return has been as high as $400 million. There were projections at some point in time of $600 million. I am informed that this year it will be $350 million that goes to primarily education in California from royalties from oil pumped out of my district in southern California.

Every single classroom, every kindergarten, every first grade, every eighth grade, every high school, every community college, every campus of the California State system, every campus of the University of California system receives a direct financial subsidy from offshore oil drilling in my particular district.

So it is not something new. We have done it for over 20 years, and it seems to me what we recognized in my particular area was that in terms of balancing the needs of the State of California, we found that some offshore drilling was sufficient. If we didn't have that drilling in my district, we would have to have a tax of at least $350 million increase per year for educational purposes in California.

So we have had support statewide. We have had these forms that the Secretary had in California. We had an amazingly broadbased coalition supporting more offshore development.

I have a copy of a telegram that was sent to Gov. George Deukmejian. This telegram was sent to him from over 100 organizations representing a wide variety of interests, and in that it states that the oil and gas resources of the OCS are too important to national security and to the economy to be tied up in blanket moratoria.

Supporters of this who have signed this particular document that went to the Governor of California include Hispanic groups, black groups, senior citizen groups, youth groups, women's groups, tourism groups, farm bureaus, fishermen, boaters, chambers of commerce, and business and labor organizations, and in a State as diverse as ours, I can tell you it is very seldom that we can get that sort of a coalition in support of anything, even if it is for apple pie and for motherhood.

So, my concern, Mr. Chairman, is that we not throw out the baby with the bath water, that we recognize that it is a balancing act, and it just seems to me that if you have the completion of some negotiations which results in getting at between 5 and 7 percent of the total oil recovery offshore, that is not much of a balancing act.

It seems to me that we have to do more, and it seems to me that both this committee and the committees in the House have got to look to the overall energy needs of this country. I think we can balance these various interests.

I would hope that you would help us to balance these various interests and recognize that as long as any agreement allows for a sharing of the burden, a sharing of the responsibility, I think it is something that all Californians can accept. They may not like it, but they can accept.

Just one specific I would like to leave with you. This particular agreement includes four tracts very, very close to my district off Palos Verdes. I have told people in my area who wished that I would be against it that if there were oil there I would support it if we could also take care of the problems of offshore air emissions.

But, in fact, rated on a scale of 1 to 10, those 4 tracts are all No. 1—the worst possible recovery you could have. So they are not going to get anything there. And I would suggest that this committee look at the map and see where all the nines and the eights are, and you will find a lot of them in areas that the Defense Department has taken off the board.

I would hope this committee would work with the Secretary in saying to the Defense Department, if in fact we have a real need for energy resource recovery in this country, in part because of national security interests, the Defense Department has to do its share as well as the people along the coastline of California. And I would hope that that would be a new element that would be entered into any particular negotiations in the future.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Lungren follows:]

TESTIMONY OF CONGRESSMAN DANIEL LUNGREN
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
SEPTEMBER 17, 1985

CALIFORNIA OUTER CONTINENTAL SHELF DEVELOPMENT

I WOULD LIKE TO THANK THE MEMBERS OF THE COMMITTEE FOR INVITING ME TO TESTIFY ON THE DEVELOPMENT OF CALIFORNIA'S OUTER CONTINENTAL SHELF AND THE PRELIMINARY AGREEMENT BETWEEN SECRETARY HODEL AND SOME MEMBERS OF THE DELEGATION ON LEASING IN CALIFORNIA. UNFORTUNATELY, I MUST EXPRESS MY STRONG OPPOSITION TO BOTH THE PROCEDURAL AND SUBSTANTIVE ASPECTS OF THE JULY 16, 1985 AGREEMENT.

I FEEL THAT WE MUST FOLLOW AN ORDERLY OCS LEASING PROCESS, AS IS CALLED FOR IN THE OCS LANDS ACT OF 1978 AND THE CURRENT FIVE YEAR LEASE SALE PROPOSAL. IN ACCORDANCE WITH THE OCS LANDS ACT, WE NEED TO IDENTIFY THE LEVEL OF CALIFORNIA'S OCS RESOURCE PRODUCTION THAT WILL MAKE A SIGNIFICANT CONTRIBUTION TO THE ENERGY NEEDS OF OUR NATION. ACCORDING TO PROJECTIONS BY THE MINERALS MANAGEMENT SERVICE (MMS), THE PROPOSED 150 TRACTS CONTAIN ONLY FIVE TO SEVEN PERCENT OF CALIFORNIA'S OCS RESOURCE POTENTIAL. INSTEAD OF LEASING THIS SET OF TRACTS, WITH ITS SMALL RESOURCE POTENTIAL, PERHAPS LEASING A SIMILAR NUMBER OF TRACTS WITH 30 PERCENT OF CALIFORNIA'S OCS POTENTIAL WOULD BE AN ACCEPTABLE LEVEL AND WOULD MAKE A SIZABLE CONTRIBUTION TO LESSENING OUR NATION'S DEPENDENCE ON FOREIGN SOURCES OF OIL.

IF WE FIRST IDENTIFY THOSE TRACTS WITH THE HIGHEST ENERGY POTENTIAL AND THEN EXCLUDE THOSE AREAS WITH PARTICULAR ENVIRONMENTAL SENSITIVITIES, I BELIEVE AN ACCEPTABLE AGREEMENT, ONE THAT TRULY HELPS US MEET OUR ENERGY NEEDS, CAN BE REACHED. I STRONGLY FEEL THAT THE DEPARTMENT OF DEFENSE MUST ALSO BE WILLING TO

COMPROMISE ON THIS ISSUE, ESPECIALLY AS MANY OF THE TRACTS NOW UNDER DOD DEFERRAL HAVE THE HIGHEST RESOURCE POTENTIAL. IT IS VERY DIFFICULT TO JUSTIFY TO MY CONSTITUENTS WHY THEY SHOULD BE ASKED TO GIVE UP AREAS FOR OCS LEASING IN THE INTEREST OF NATIONAL SECURITY WHEN DOD IS NOT WILLING TO FOLLOW SUIT. IN THE CALIFORNIA DELEGATION MEETING LAST WEEK WITH SECRETARY HODEL, I REQUESTED THAT INTERIOR WORK WITH THE DEFENSE DEPARTMENT TO IDENTIFY SOME OF THE ADDITIONAL DOD DEFERRAL TRACTS FOR LEASING.

AS YOU KNOW, MANY CALIFORNIANS ARE CONCERNED ABOUT THE ENVIRONMENT AND THE EFFECT OF OCS LEASING ON THE TOURISM AND FISHING INDUSTRIES. I TOO AM CONCERNED ABOUT THE ENVIRONMENT AND THE CONTINUED VIABILITY OF THE TOURISM AND FISHING INDUSTRIES; HOWEVER, OCS DEVELOPMENT IS NOT INCOMPATIBLE WITH THESE GOALS. AS YOU KNOW, SINCE 1969, THE ENVIRONMENTAL RECORD OF THE OIL INDUSTRY HAS BEEN EXCELLENT. AS UNFORTUNATE AS THE SANTA BARBARA OIL SPILL WAS, NO AREA, INCLUDING SANTA BARBARA, SHOWS ANY SIGNS OF LONG TERM ENVIRONMENTAL DAMAGE. IT IS INTERESTING TO NOTE THAT RIVER RUNOFF, NATURAL SEEPAGE, TANKERS AND OTHER MODES OF TRANSPORTATION ACCOUNT FOR OVER 76% OF THE OIL IN THE OCEAN; WHEREAS, U.S. OFFSHORE OIL PRODUCTION ACCOUNTS FOR ONLY 5/100THS OF 1% OF THE OIL IN THE OCEAN. TANKER TRAFFIC, WHICH NOW CARRIES A MAJORITY OF THE OIL USED BY SOUTHERN CALIFORNIANS, IS MORE DANGEROUS THAN OCS PRODUCTION. IN FACT, ACCORDING TO MMS AND THE COAST GUARD, SINCE 1970, OVER TWO MILLION BARRELS OF OIL HAS BEEN SPILLED FROM TANKER ACCIDENTS IN U.S. WATERS. THIS COMPARES TO THE ONLY 840 BARRELS LOST FROM OCS ACTIVITY. WITHOUT ADDITIONAL OFFSHORE DRILLING, TANKER TRAFFIC IN SOUTHERN CALIFORNIA IS LIKELY TO INCREASE, AND WITH IT A HIGHER RISK OF OIL SPILLS.

IN REGARDS TO THE TOURIST AND FISHING CONCERNS, THERE IS STRONG EVIDENCE THAT THE DEVELOPMENT OF OUR OCS ENERGY RESOURCES WILL HELP BOTH OF THESE INDUSTRIES. AT THE VERY LEAST, IT WILL NOT HURT. THERE IS NOTHING MORE

DEVASTATING TO THE TOURIST BUSINESS THAN AN OIL SHORTAGE, AS EVIDENCED BY THE ECONOMIC DECLINE EXPERIENCED BY THE INDUSTRY DURING THE TWO 1970 OIL EMBARGOES. AND, TOURISM IN THOSE AREAS, SUCH AS HUNTINGTON BEACH AND SANTA BARBARA, WHICH HAVE EITHER A STATE OR FEDERAL OFFSHORE DRILLING PRESENCE, HAS FLOURISHED.

IN ADDITION, OCS DEVELOPMENT WILL HAVE A POSITIVE EFFECT ON THE ECONOMY, BOTH IN CALIFORNIA AND NATIONWIDE, THROUGH JOB CREATION AND REDUCTION OF OUR FEDERAL BUDGET AND TRADE DEFICITS. IT IS ESTIMATED THAT FOR EVERY WORKER ON AN OFFSHORE PLATFORM, FOUR JOBS ARE CREATED ONSHORE IN A SUPPORT CAPACITY. ACCELERATED LEASING ON THE OUTER CONTINENTAL SHELF OVER THE NEXT TEN YEARS COULD RESULT IN AS MANY AS ONE MILLION NEW JOBS FOR AMERICANS. ACCORDING TO A RECENT NATIONAL OCEAN INDUSTRIES ASSOCIATION (NOIA) SURVEY, THE ONE YEAR MORATORIA HAVE SIGNIFICANTLY HURT THE OIL DEVELOPMENT SUPPORT INDUSTRIES WITH THE DIRECT EFFECT BEING THE LOSS OF JOBS. THE EMPLOYMENT LEVEL HAS DROPPED ALMOST FIFTY PERCENT DUE TO THE CURRENT MORATORIUM AND IS LIKELY TO DROP EVEN MORE WITHOUT INCREASED DEVELOPMENT.

THE OCS PROGRAM IS ALSO A MAJOR SOURCE OF FEDERAL REVENUE, WITH POTENTIAL TO PROVIDE $7 TO $10 BILLION IN FEDERAL FUNDS PER YEAR, THUS HELPING TO REDUCE OUR $200 BILLION BUDGET SHORTFALL. IN ADDITION TO MAKING A CONTRIBUTION TO OUR FEDERAL DEFICIT, THE DEVELOPMENT OF DOMESTIC ENERGY RESOURCES WILL MAKE A SIZABLE DENT IN OUR BALANCE OF PAYMENTS DEFICIT. ONE HALF OF OUR TRADE DEFICIT, OVER $54 BILLION IN 1984, IS ATTRIBUTABLE TO OIL IMPORTS, AND THE FIGURE IS RISING EACH YEAR.

THERE IS ONE OTHER AREA THAT I WOULD LIKE TO TOUCH ON, AND THAT IS THE MISCONCEPTION THAT CALIFORNIANS ARE ADAMANTLY OPPOSED TO OFFSHORE DRILLING. I COME TO YOU AS A NATIVE CALIFORNIAN WHO WAS BORN JUST 1½ BLOCKS FROM THE BEACH. ALTHOUGH SOME THINK THAT CALIFORNIA DOES NOT HAVE ANY OFFSHORE OIL DRILLING, MY HOME TOWN, LONG BEACH, HAS HAD OFFSHORE DRILLING ACTIVITY IN THE STATE TIDELANDS

FOR OVER TWENTY YEARS. LONG BEACH HARBOR HAS FOUR OIL ISLANDS, WITH 250 WELLS PER ISLAND, FOR A TOTAL OF 1000 WELLS. THE OFFSHORE DRILLING IN LONG BEACH PROVIDES APPROXIMATELY $350 MILLION IN ROYALTY REVENUE TO THE STATE TO CALIFORNIA EVERY YEAR. INTERESTINGLY, THIS MONEY IS USED PRIMARILY TO FUND OUR STATE'S EDUCATION PROGRAMS. EVERY PUBLIC ELEMENTARY AND SECONDARY SCHOOL, EVERY STATE UNIVERSITY, EVERY CAMPUS OF THE UNIVERSITY OF CALIFORNIA BENEFITS DIRECTLY FROM THE OFFSHORE OIL DRILLING IN LONG BEACH HARBOR. WITHOUT THIS DRILLING, THE CITIZENS OF MY STATE WOULD HAVE TO PAY $350 MILLION MORE EACH YEAR IN TAXES TO FUND THE STATE'S EDUCATIONAL PROGRAMS.

AND AS SECRETARY HODEL HELD PUBLIC FORUMS IN CALIFORNIA LAST MONTH, IT BECAME INCREASINGLY EVIDENT THAT THERE IS AN AMAZINGLY BROAD BASED COALITION SUPPORTING MORE OCS DEVELOPMENT. DESPITE THE CLAIMS OF SOME, IT IS NOT ONLY THE OIL INDUSTRY THAT SUPPORTS INCREASED DEVELOPMENT. A WIDE VARIETY OF GROUPS WERE REPRESENTED AT THE HEARINGS AND OPPOSED THE PRELIMINARY AGREEMENT BECAUSE IT DID NOT PROVIDE ENOUGH OPPORTUNITY FOR DEVELOPMENT. THOSE TESTIFYING FOR INCREASED DEVELOPMENT INCLUDED THE NATIONAL ALLIANCE OF SENIOR CITIZENS, THE GENERAL FEDERATION OF WOMEN'S CLUBS, THE CALIFORNIA FARM BUREAU, THE SOUTHERN CALIFORNIA MARINE ASSOCIATION, THE CALIFORNIA CHAMBER OF COMMERCE, THE LATIN BUSINESS ASSOCIATION, AND THE AMERICAN JEWISH COMMITTEE, TO NAME JUST A FEW. OVER TWO THOUSAND RANK-AND-FILE WORKERS FROM OCS-RELATED BUSINESSES AGREED ON THE NEED FOR JOB OPPORTUNITIES AND RALLIED IN SUPPORT OF INCREASED DEVELOPMENT IN THE CITY OF VENTURA LAST MONTH.

FORTY REPUBLICAN AND DEMOCRAT CALIFORNIA SENATORS AND ASSEMBLY MEMBERS SIGNED LETTERS TO SECRETARY HODEL SUPPORTING INCREASED DEVELOPMENT. IN ADDITION, IN A TELEGRAM SENT TO GOVERNOR DEUKMEJIAN, OVER 100 ORGANIZATIONS, REPRESENTING A WIDE VARIETY OF INTERESTS, STATED THAT "THE OIL AND GAS RESOURCES OF THE OCS ARE TOO IMPORTANT TO NATIONAL SECURITY AND TO THE ECONOMY TO BE TIED

UP IN BLANKET MORATORIA." SUPPORTERS OF INCREASED DEVELOPMENT INCLUDED HISPANICS, BLACKS, SENIOR CITIZENS, YOUTH GROUPS, WOMEN'S GROUPS, TOURISM GROUPS, FARM BUREAUS, FISHERMAN, BOATERS, CHAMBERS OF COMMERCE, AND BUSINESS AND LABOR ORGANIZATIONS. IT IS RARE INDEED THAT SUCH AN UNUSUAL DIVERSITY OF INTERESTS, AND REPRESENTING MORE THAN FOUR MILLION VOTERS, CAN AGREE ON ONE THING. I HAVE ATTACHED A COPY OF THIS TELEGRAM FOR THE RECORD.

AT A TIME OF CONTINUED TENSION IN THE MIDDLE EAST, IT IS NOT IN THE NATION'S BEST INTEREST TO MAKE IT MORE DIFFICULT TO FIND AND PRODUCE DOMESTIC SOURCES OF OIL. HOWEVER, THE IMPLEMENTATION OF THE PRELIMINARY AGREEMENT WOULD HAVE JUST THAT EFFECT AND WOULD CONFLICT WITH THE NATIONAL GOAL OF ENERGY SELF-SUFFICIENCY AND REDUCED RELIANCE ON FOREIGN OIL SOURCES. DESPITE OUR CONSERVATION EFFORTS, THE U.S. STILL IMPORTS ONE THIRD OF ITS OIL AND GAS, THE SAME PERCENTAGE AS WAS IMPORTED PRIOR TO THE 1973 OIL EMBARGO. WE STILL RELY ON OIL AND GAS FOR MOST--OVER 70%, IN FACT--OF OUR ENERGY NEEDS, AND WE WILL CONTINUE DO SO FOR THE FORESEEABLE FUTURE. PUT SIMPLY, AMERICA NEEDS TO DEVELOP DOMESTIC SOURCES OF OIL. PROVIDING FOR AN ORDERLY OCS DEVELOPMENT PROGRAM, INCLUDING LEASING OF HIGH POTENTIAL TRACTS OFF THE CALIFORNIA COAST, WILL HELP US MEET THOSE NEEDS.

I WOULD LIKE TO END WITH ONE THOUGHT: WHILE MAKING THOSE HARD DECISIONS ABOUT OCS LEASING, MAYBE WE HAD BEST CONSIDER HOW DIFFICULT IT WOULD BE FOR ANY OF US TO EXPLAIN TO THE MOTHER OF A SERVICEMAN KILLED IN THE MIDDLE EAST DEFENDING OUR CRITICAL ENERGY SUPPLIES WHY WE DID NOT HAVE THE POLITICAL WILL TO DEVELOP OUR OFFSHORE OIL RESERVES.

The **Chairman**. Thank you very much.

Senator Cranston.

STATEMENT OF HON. ALAN CRANSTON, A U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator **Cranston**. Thank you very much, Mr. Chairman. I am delighted to have this opportunity to appear before you as the senior Senator from California speaking not only for myself but for the bipartisan views which I share with my Republican colleague from California in the Senate, and for the vast majority of the State's 45-member delegation to the House.

When the Reagan administration came to town, it claimed a mandate from what was called the sagebrush rebellion, the desire of sovereign States, especially western States, to protect their rights free of the threat to those rights by bureaucracies of the central government, especially the Department of the Interior.

Unfortunately, the administration seems to have forgotten that mandate.

The administration seems perfectly willing to try to push around the California congressional delegation using whatever leverage it can now muster. That effort comes after the Secretary of the Interior has walked away from an agreement he negotiated with a bipartisan group of representatives of the California delegation in what he claimed and we understood to be good faith.

Those negotiations were a serious attempt to try to end the annual warfare over Federal OCS leasing that has plagued concerned citizens and the State, coastal county, and local governments of California since this administration took office. And Secretary Watt attempted to lease the entire California coastlines in a fire sale to the major oil companies.

As this committee is well aware, for 4 consecutive years the full Congress has approved 1-year moratoria which included portions of the California coastline. In the past two Congresses, I have introduced legislation referred to this committee and still before it to settle this issue along lines close to those arrived at with the Secretary of Interior and the delegation's discussions. In the present Congress, that bill is S. 734.

When the conference managers on the Interior appropriations bill agreed upon the moratorium language last year, they added language to the report which today's chairman had a hand in drafting.

It conditioned future moratoria on failure of the negotiation process with the Department of the Interior to assure adequate protection for all resource values and Department of Defense needs in specific areas, and urged the department to pursue negotiations with the appropriate California congressional, State, and local officials.

Under such pressure, the Secretary did engage in negotiations with the interested members of the delegation, a careful, tough process which took place over a period of weeks, and through numerous sessions. Both California Senators participated in the process and supported its outcome, an agreement in principle struck and announced at a press conference just before the August recess in which the Secretary fully participated.

At that press conference I said, "Today's agreement in principle represents an important milestone in the efforts to devise a sensible, environmentally sensitive OCS leasing policy for the California coastline. The future of this tentative agreement relies on the continued good faith of all those who have worked on it, particularly the Secretary of the Interior.

"As in all such cases, there is an element of risk. But the tenor of the negotiations to date has convinced me that that risk is worth taking."

Unfortunately, the risk which I understood was present has now materialized. Although I support it fully, I will leave to the witnesses that follow today to support the details of the agreement that was struck, which I believe took fully into account our Nation's need for energy as well as the need to preserve some of the beautiful spots on this Earth for our grandchildren, free of development, even if somebody believes that they may contain some oil, and to balance competing considerations within the framework of consistency with the States federally approved coastal zone management plan as required by Federal law.

But this committee has received considerable misinformation, and undoubtedly it will hear more today about both the negotiating process that was undertaken and the substance of the agreement that was reached. In evaluating what it is hearing and deciding upon any future course of action, I believe the committee should keep the following points in mind.

First, the negotiations were about what tracts to remove from areas previously protected repeatedly by Congress, and often in previous administrations by Federal Executive order or Secretarial deletion from OCS leasing.

Second, the 150 tracts selected to be added to the areas available for leasing came from a list of 200 which the Secretary proposed as those of high oil company interest. Literally thousands of other tracts were removed from consideration because although they were of high environmental concern, they were of no particular interest to oil companies, because of location, water depth, lack of economic resource, or other reasons.

The use of percentages, resource estimates, or other arguments premised on the notion that the Secretary acquired only 150 tracts out of 6,420 is pure propaganda. And those using this argument know it. The Secretary got three-quarters of what he bargained for.

Third, arguments have been made that this agreement will deny jobs to those in the oil industry currently unemployed or to unemployed workers from minority groups who want to be so employed. The facts are that relatively few jobs are at stake.

Fourth, two things should be known about the new resource estimates upon which the Secretary purports to be basing his abandonment of the original agreement. They are not new, and were known by the Secretary before the agreement was reached, and all estimates of undiscovered resources are as admittedly uncertain as the economic, geologic, and probabilistic data on which they are based.

Finally, this is a California issue on which the California delegation in the U.S. Senate representing both political parties is in complete accord.

California has not attempted to withhold its entire coastline from OCS leasing. It has recently offered major new areas for development, and it continues to be the fourth leading oil producing State in the Nation, and is leading every other State in the Union by far in energy conservation and production of energy from alternative and renewable resources.

The State through its representatives has a right to decide how and where it will make its contribution to the national energy supply, and Federal offshore activities required to be consistent with the States federally approved coastal zone management plan under Federal law.

Should this committee report legislation to resolve the situation, I trust that Senator Wilson and I will be given every opportunity to assist the committee in marking up that legislation that senatorial courtesy and precedent in the Senate would seem to require.

My preference is for a bill that reflects the agreement struck by the Secretary, modified by the adjustments noted off of Orange County and Oceanside, and protecting the areas reserved from leasing for the balance of this century, subject to reconsideration in the event of a national energy emergency.

The delegation has not abandoned its hope of reaching a final accord with the Secretary, and formal negotiating teams representing each party and all points of view within the delegation have been structured for that purpose, but given what has befallen the previously negotiated agreement, the delegation believes that an extension of the previous moratorium throughout any period covered by the negotiations and until a final agreement is reached is a necessity.

We hope that this committee, and particularly its chairman and ranking member, who are key members of the Appropriations Committee, will help us achieve these objectives.

While the Secretary would have you believe that national issues are at stake, such as our energy independence, the facts are that Interior has consistently overestimated the importance of OCS leasing.

Of the 1,562 tracts Interior has offered for sale off southern California, only 13, 1 percent, have production platforms on them. Eighty percent of those Interior insisted on putting up for lease were never leased, and only about a third of those leased have had even exploratory drilling. These statistics do not yet include the new leases in the oil rich Santa Maria Basin.

To offer too many tracts for lease drives down the price that the public receives for its lands. GAO has estimated that we have lost $7 billion, $3.1 million per tract on every tract it leased from the administration's fire sale policies, which have included two recent lease sales, one off the California coast, to which nobody came.

If it is important to explore all areas of the coastline for oil, shouldn't we at least start in those areas that have already been leased or made available for lease to oil companies?

For the committee's record, I offer a letter I recently handed to the Secretary of the Interior at the conclusion of our negotiations, a letter to President Reagan re repeal of the affirmative action rules on the OCS, and letters received from the Brotherhood of Carpenters and Joiners of America, local 2375 re hiring of undocumented foreign nationals on OCS rigs, and a letter to then U.S. Trade Representative William Brock re manufacture of offshore drilling rigs in Japan and Korea.

These are issues affecting California that the California delegation has dealt with closely and carefully for many years. It is vital that we receive the support of our colleagues on the Energy and Natural Resources Committee at this time, and that the committee avoid basing judgments on the sweeping generalizations that some of the testimony it hears today is likely to contain.

I thank you very much.

[The prepared statement of Senator Cranston and additional material follows:]

TESTIMONY OF SENATOR ALAN CRANSTON (D.-CALIF) TO THE UNITED STATES SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, SEPTEMBER 17, 1985

Mr. Chairman and Members of the Committee:

I appear before you today as the senior United States Senator from California, speaking not only for myself but for the bi-partisan views which I share with my Republican colleague from California, and for the vast majority of the state's 45-member delegation to the House of Representatives.

When the Reagan Administration came to town, it claimed a mandate from what was called the Sagebrush Rebellion, the desire of sovereign states, especially western states, to protect their rights free of the threat to those rights by bureaucracies of the central government, especially the Department of the Interior.

Unfortunately, the Administration seems to have forgotten that mandate.

The Administration seems perfectly willing to try to push around the California Congressional delegation, using whatever leverage it can now muster.

That effort comes after the Secretary of the Interior has walked away from an agreement he negotiated with a bi-partisan group of representatives of the California delegation in what he claimed and we understood to be good faith.

Those negotiations were a serious attempt to try to end the annual warfare over federal OCS leasing that has plagued concerned citizens and the state, coastal county and local governments of California since this Administration took office, and Secretary Watt attempted to lease the entire California coastline in a fire sale to the major oil companies.

A negotiated solution makes a great deal of sense, and is a course I have always tried to pursue since I became interested in this issue in 1969, three weeks after taking my Senate seat, when the very severe Santa Barbara oil blowout occurred, bringing the issue forcefully to my attention.

I have discussed California off-shore leasing with eight different Secretaries of the Interior, seven of them Republicans. Only during the present Administration have I become convinced that a legislative solution is needed to insure balanced protection to special portions of the California coastline.

As this Committee is well aware, for four consecutive years the full Congress has approved one-year moratoria, which included portions of the California coastline. In the past two Congresses I have introduced legislation, referred to this Committee and still before it, to settle this issue along lines close to those arrived at with the Secretary of the Interior in the delegation's discussions. In the present Congress, that bill is S. 734.

When the conference managers on the Interior Appropriations bill agreed upon the moratorium language last year, they added language to the report which today's chairman had a hand in drafting. It conditioned future moratoria on failure of the negotiation process with the Department of the Interior to ensure adequate protection for all resource values and Department of Defense needs in specific areas, and urged the Department to pursue negotiations with the appropriate California Congressional, State and local officials.

Under such pressure, the Secretary did engage in negotiations with the interested members of the delegation--a careful, tough process which took place over a period of weeks and through numerous sessions. Both California Senators participated in the process, and supported its outcome, an agreement in principle, struck and announced at a press conference just before the August recess in which the Secretary fully participated.

It was clear to all who participated that further work needed to be done on a "national security clause" to the agreement, to craft an exception to cover the contingency of a new national energy emergency, that adjustment of the location of five tracts off Oceanside to locations nearer Camp Pendleton was desired--if the Department of Defense would concur, as I am informed that they now do--and that adjustment of the six tracts off Newport Beach (Orange County) to another location, if one could be agreed upon, remained possible. Otherwise, the agreement was firmly struck as to the number of tracts from which legislative protection was to be removed (150) and the location of those tracts.

At that press conference, I said,

"Today's agreement in principle represents an important milestone in the efforts to devise a sensible, environmentally-sensitive, OCS leasing policy for the California coastline.

"The future of this tentative agreement relies on the continued good faith of all those who have worked on it, particularly the Secretary of the Interior.

"As in all such cases, there is an element of risk.
"But the tenor of the negotiations to date have convinced me that that risk is worth taking."

Unfortunately, the risk which I understood was present has now materialized.

Although I support it fully, I will leave to the witnesses that follow today to support the details of the agreement that was struck, which I believe took fully into account our nation's need for energy, as well as our need to preserve some of the beautiful spots on this earth for our grandchildren, free of development, even if somebody believes they may contain some oil; and to balance competing considerations within the framework of consistency with the State's federally-approved coastal zone management plan, as required by federal law.

But this committee has received considerable mis-information, and undoubtedly will hear more today, about both the negotiating process that was undertaken and the substance of the agreement that was reached. In evaluating what it is hearing and deciding upon any future course of action, I believe the Committee should keep the following points in mind:

--First, the negotiations were about what tracts to remove from areas previously protected repeatedly by Congress, and often, in previous Administrations, by federal executive order or Secretarial deletion, from OCS leasing. Huge portions of the OCS off California are not now and never were under this moratorium. These include most of the Santa Maria basin from Morro Bay southward, where huge new deposits of oil have been found; all of the area off of Ventura County (except for a six-mile buffer zone around each of the Channel Islands); all of the area off Long Beach, except for a 3-mile zone along the State boundary; and all of the area off both Orange and San Diego Counties, starting about 20 miles from shore. These areas, especially those in the Santa Maria basin, already make available for leasing about 80% of the estimated resources off the California coast.

--Second, the 150 tracts selected to be added to the areas available for leasing came from a list of 200 which the Secretary proposed as those of high oil company interest. Literally thousands of other tracts were removed from consideration because although they were of high environmental concern, they were of no particular interest to oil companies, because of location, water depth, lack of economic resource, or other reasons. The use of percentages, resource estimates, or other arguments premised on the notion that the Secretary acquired "only 150 tracts out of 6,420" is pure propaganda, and those using this argument know it. The Secretary got 3/4's of what he bargained for.

--Third, arguments have been made that this agreement will deny jobs to those in the oil industry currently unemployed, or to unemployed workers from minority groups, who want to be so employed. The facts are that relatively few jobs are at stake in those areas that might be leased if no moratorium were at issue; that unemployment in the oil industry in California is a result of shut-in production wells onshore resulting from the glutted market; that drilling platforms for those California tracts which have previously been leased are being built in Korea and Japan, under recently awarded contracts; that at least one of the major oil companies presently operating rigs off the California coast is reportedly bringing in foreign undocumented nationals from Spain and the Netherlands to work the rigs illegally; and that the oil industry does not have a good record on minority hiring. In addition, the Reagan Administration, over my objection, rescinded the affirmative action requirements for minority-owned businesses contracting with the government for work on the OCS. Moreover, both the fishing and tourism industries in California, which provide many more jobs and hire much higher percentages of minority workers, are likely, as they will testify, to be damaged by intensified OCS leasing activities in the restricted areas.

--Fourth, two things should be known about the "new resource estimates" upon which the Secretary purports to be basing his abandonment of the original agreement. They are not new and were known by the Secretary before the agreement was reached; and all estimates of undiscovered resources are as admittedly uncertain as the economic, geologic and "probabilistic" data on which they are based.

--Finally, this is a California issue, on which the California delegation in the United States Senate, representing both political parties, is in complete accord. California has not attempted to withhold its entire coastline from OCS leasing; it has recently offered major new areas for development, and it continues to be the fourth leading oil-producing state in the nation, and is leading every other state in the union by far in energy conservation, and production of energy from alternative and renewable resources. The state through its representatives has the right to decide how and where it will make its contribution to the national energy supply, and federal offshore activity is required to be consistent with the state's federally-approved coastal zone management plan, under federal law. Should this Committee report legislation to resolve this situation, I trust that Senator Wilson and I will be given every opportunity to assist the Committee in marking up that legislation that Senatorial courtesy and precedent in the Senate would seem to require.

My preference is for a bill that reflects the agreement struck with the Secretary, modified by the adjustments noted off of Orange County and Oceanside, and protecting the areas reserved from leasing for the balance of the century, subject to reconsideration in the event of a national energy emergency.

The delegation has not abandoned its hope of reaching a final accord with the Secretary, and formal negotiating teams, representing each party and all points of view within the delegation, have been structured for that purpose. But given what has befallen the previously negotiated agreement, the delegation believes that an extension of the previous moratorium throughout any period covered by the negotiations and until a final agreement is reached is a necessity. We hope this Committee, and particularly its Chairman and ranking member, who are key members of the Appropriations Committee, will help us achieve these objectives.

While the Secretary would have you believe that national issues are at stake, such as our energy independence, the facts are that Interior has consistently overestimated the importance of OCS leasing. Of the 1562 tracts Interior has offered for sale off Southern California, only 13 (1%) have production platforms on them. Eighty per cent of those Interior insisted on putting up for lease were never leased, and only about a third of those leased have had even exploratory drilling. These statistics do not yet include the new leases in the oil-rich Santa Maria basin.

To offer too many tracts for lease drives down the price that the public receives for its lands. GAO has estimated that we have lost $7 billion ($3.1 million per tract on every tract it leased) from the Administration's fire sale policies, which have included two recent lease sales, one off the California coast, to which nobody came. If it is important to explore all areas of the coastline for oil, shouldn't we at least start in those areas that have already been leased or made available for lease to oil companies?

For the Committee's record, I offer a letter I recently handed to the Secretary of the Interior at the conclusion of our negotiations, a letter to President Reagan re repeal of affirmative action rules on the OCS, and letters received from the Brotherhood of Carpenters and Joiners of America, local #2375 re hiring of undocumented foreign nationals on OCS rigs, and a letter to then United States Trade Representative William Brock re manufacture of offshore drilling rigs in Japan and Korea.

These are issues affecting California that the California delegation has dealt with closely and carefully for years. It is vital that we receive the support of our colleagues on the Energy and Natural Resources Committee at this time, and that the Committee avoid basing judgments on the sweeping generalizations that some of the testimony it hears today is likely to contain.

United States Senate
WASHINGTON, D.C. 20510

September 10, 1985

Hon. Donald Paul Hodel
Secretary of the Interior
19th and Constitution Avenues
Washington, D.C. 20240

Dear Don,

Thank you very much for your letter of September 4 soliciting my current thinking about the agreement you previously reached with me and other members of the California Congressional delegation about California offshore areas to be protected from future OCS oil and gas lease sales.

I continue to be very appreciative of the amount of time you've taken to become more familiar with the complex issues involved and to work with the delegation. But the good will you've generated will be lastingly destroyed if that agreement is now jettisoned.

I've been closely involved on the federal level with these issues since I took my Senate seat in 1969. The Santa Barbara oil blowout occurred three weeks later. You are the eighth Secretary of the Interior (seven Republicans) I've worked with on these issues. With the exception of Secretary Watt--who persisted in the view that just about everything should be exploited for energy potential--all eventually came to the understanding reflected by our July 16th agreement. Namely, that certain areas of the California coastline deserve special protection and provide other important values that outweigh any need to search for energy in those areas. Our July 16 agreement reflects a joint definition of those areas.

Nothing I've heard since--and I've spent the entire period in California--would require any major modification of the agreement. Two minor adjustments--one already cleared with you--are suggested by the public response to the July 16 agreement. But these are the kind of fine tuning contemplated by the original agreement, not a basis for opening up the whole agreement for renegotiation. Neither is a precondition for my continued support of the agreement, and pursuit of these adjustments can be productive only with a firm commitment by you to stand by the agreement which we thought had been negotiated in good faith.

While I'm quite willing to hear firsthand your impressions based on your California consultations, both the structure of the meeting and the views expressed in your ten-page letter to Senator McClure make the proposed meeting appear more aimed at public relations than a sincere attempt to finalize this agreement. Without a convincing indication from you that you remain wedded to the outcome of our previous negotiations, going on with this process would seem to be a waste of another precious resource--time.

I am very troubled by conclusions you seem to have drawn from purported new information you received while in California. While you no doubt increased your information, it's my impression that much of what was new to you was neither new nor information. Some of it was disinformation, and some of it was just plain noise. What is troublesome is that you are now repeating it as though it were fact.

It was never realistic to assume that a negotiated compromise would win the support of extremists on either side of this issue--those who would ban energy development everywhere or those who believe that reserving any portion of the public's undersea lands from oil company drills is a "giveaway" to the public, as one press release issued during your Ventura County visit indicated. The hope that your prior negotiations with the delegation engendered was that we might, at last, conclude an agreement to preserve some of the state's precious coastal areas from the annual battle this Administration has waged to lease it to oil companies. The discussion was, after all, limited to those areas which Congress had chosen for special protection four times previously, not the entire coastline of the state, whereas the areas not under moratorium probably contain 80% of the known resources off the California coast.

When this resource estimate was first cited to you during our early discussions, you indicated it was based on old resource estimates. My staff asked for, and received Interior's latest resource estimates on June 20, 1985, more than three weeks before you reached agreement with the California delegation. They are included in a 1985 publication by the Department, based on data collected through July of 1984. The Director of the Minerals Management Service, who transmitted this data to us, staffed you throughout the negotiations. Yet you now argue that you depended on old data, and that you received new resource estimates from the oil companies during your California rounds.

Even more telling than the estimates sent to me, however, is the transmittal letter from the Director of the Minerals Management Service, in which he states, "These estimates are of undiscovered resources and are by necessity highly uncertain." He goes on to explain that the uncertainty is "inherent", and that the resource estimates are based on "probabilistic techniques" based on combining geological knowledge with economic forecasts and technology considerations.

Such numbers, or any new ones that replace them, undoubtedly have their usefulness, but they are not a credible basis for abandoning a carefully negotiated agreement with the California Congressional delegation.

Your second area of recited new concern is for lost employment opportunities, especially for minority workers in California, which you have stated could result from the agreement. I'm very appreciative that you are concerned about high unemployment among Black and Hispanic workers. It is certainly a concern I share. Regrettably, you were not Secretary of the Interior when Secretary Watt abolished, over my objection, the affirmative action rules re minority owned businesses for federal OCS activities. Perhaps you would consider restoring those rules, as one way to alleviate this concern.

But, again, any potential job loss here is highly debatable. You reject potential losses of jobs in the existing tourism or fishing industries, although representatives of those industries have repeatedly testified about the job losses that could result from OCS leasing in certain areas. You mention in passing the complaints that drilling platforms for existing OCS leases are being constructed in Korea and Japan, but don't mention the complaints we have received from the labor union covering the skilled trades involved in existing OCS activities that at least one major oil company operating on the California OCS is bringing in undocumented foreign nationals from Spain and elsewhere to work illegally on their oil rigs; or the findings of the Civil Rights Commission a few years ago that the major oil industry has one of the worst records for hiring minorities. You mention concern for jobs in the oil industry in Ventura County, but don't mention the world oil glut that has caused the shutting-in of many onshore production wells in California, or that the moratorium area does not directly affect Ventura County.

We, as reasonable people, may draw differing conclusions from this data. We did before the negotiations, and we still do. But despite these differences, we negotiated an agreement. As elected Controller of the State of California, I was responsible for all State-owned oil production. It does not surprise me that people in Ventura County, in Long Beach, or near the southern end of the Santa Maria basin, and near the industrialized areas of Eureka (as well as oilmen in distinctly non-coastal Bakersfield) favor oil development. I also support oil development in these areas. But it is no coincidence that the state, in its coastal zone management plans, has chosen not to develop some of it's potential resources in other areas that it has chosen to use for recreational beaches, for preservation of natural habitat, or otherwise, and it is no coincidence that Congress wrote the CZMA to require consistency between federal and state activities off a state's coastal zone. These are the areas we have sought to protect in our agreement with you.

Senator Wilson and I are the only Members of Congress who represent all the affected districts covered by this agreement, and we both believe that the negotiated agreement should stand. While no agreement on this subject can ever be crafted that will satisfy everyone, the agreement you reached has the full support of the vast bi-partisan majority of the delegation, and the overwhelming support of nearly all who represent the affected coastal districts, as our telegram to you indicates.

It is most disappointing that you would use a numbers game you know is misleading to attempt to justify walking away from our agreement. You know as well as we do that of the 6460 tracts in the moratorium area, more than 6000 are not of any interest to the oil companies because they are in water too deep to drill in economically, or otherwise unsuitable. It was you who proposed settlement on a list of 200 high oil company interest tracts to the delegation, at least half of which are included in the final package of 150. Yet your resource estimates and job loss estimates are all premised on the full 6450 tracts, 85% of which would never be leased whether or not offered.

In another context, you provide a fascinating statistic. Of the 1562 tracts Interior has offered for lease off Southern California, only 13 (1%) have production platforms on them. 80% of those Interior insisted on offering were never leased, and only about a third of those leased have had even exploratory drilling. The oil-rich southern Santa Maria basin has recently been leased, and our agreement adds substantially to the tracts available for leasing there. Our agreement is a reasonable balance of the competing considerations.

Failure to honor it will certainly betray the terms under which it was negotiated, and will put your honor and credibility at stake with the California delegation, if not the entire Congress.

That is my present thinking.

Cordially,

Alan Cranston

BEST COPY AVAILABLE

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, DC 20240

In Reply Refer To:
LMS-Mail Stop 641

JUN 20 1985

Honorable Alan Cranston
United States Senate
Washington, D.C. 20510

Dear Senator Cranston:

As a follow up to our June 12, 1985, meeting with Mr. Harold Gross of your staff, I'd like to provide you with a copy of our report, "Estimates of Undiscovered Economically Recoverable Oil and Gas Resources for the Outer Continental Shelf as of July 1984", and to offer further comments concerning the use of resource estimates. These estimates are of undiscovered resources and are by necessity highly uncertain. They incorporate our current knowledge concerning the geology of the area in conjunction with economic forecasts and technology considerations. To reflect this inherent uncertainty, the estimates are developed using probabilistic techniques and presented as a probability distribution or range of estimates.

Table 4 of the report contains our estimates of the hydrocarbon potential of the California planning areas. The conditional estimates are the amounts we estimate exist given that commercial quantities are present in the area. For instance, in Central California if commercial hydrocarbons are present we believe that there's a 95 percent chance that at least 180 million barrels of oil and 290 billion cubic feet of gas will be present, a 5 percent chance that more than 1.01 billion barrels of oil and 1.38 trillion cubic feet of gas will be found, and an average of the amount found will be 560 million barrels of oil and 790 billion cubic feet of gas. As you can see, there is a wide range of possibilities.

In the Central California planning area, however, we estimate that there is a 65 percent chance of commercial hydrocarbons being present or a 35 percent chance that the area will be dry. A statistical tool often used in economic analysis is the risked mean. This represents a statistical average of all possible outcomes including the 35 percent of the time the area is estimated to have no commercial hydrocarbons. However, this is not the amount we expect to find if hydrocarbons are present.

In closing, these estimates are just that--estimates. They incorporate in as objective a manner as possible our current imperfect knowledge about the state of nature. As additional information becomes available these estimates are by necessity revised to reflect that new knowledge.

I hope this information is useful. Please contact this office if you need additional information.

Sincerely,

Director

Attachment

United States Senate
WASHINGTON, D.C. 20510

July 17, 1981

Honorable Ronald Reagan
The White House
Washington, D.C. 20500

Dear Mr. President,

On June 4, in the Federal Register, Secretary Watt published his intention to eliminate the rule prohibiting discrimination against minority and women-owned businesses engaged in OCS leasing activities.

Coming at a time when your Administration is pressing for a substantial expansion of OCS drilling, which will mean more federal involvement and more offshore contracting and jobs, the repeal of a regulation barring sex and race discrimination in hiring or contracting seems particularly ill-advised and seems to reflect an insensitivity by Secretary Watt to the firmly established, long-standing federal policy of providing equal employment opportunities in activities operated by, or under the control of, the federal government.

The regulation was adopted in response to a concern expressed by the Congress during debate on the OCS Lands Act Amendments of 1978 that existing federal equal employment and procurement programs might not apply to OCS activities. Congress required DOI to take any action deemed necessary to prohibit unlawful employment practices and assure that no person is excluded from participating in federally-sponsored OCS activities on the basis of unlawful discrimination.

Secretary Watt argues that the oil "industry has a history of voluntary commitments and programs for the socially and economically disadvantaged." I do not dispute this contention. I'm not even sure what it includes. But it is completely beside the point. Even if the oil industry had an overwhelmingly positive record with respect to helping the "socially and economically disadvantaged" and with respect to hiring practices -- which it clearly doesn't -- that would not mean that there should not be a federal law preventing individual companies from engaging in discrimination.

The Secretary informs us that information supplied by the industry verifying its record is held by other federal agencies and "would be available to the (Interior) Department if needed." It is obvious from this statement that the Secretary did not bother to check that record. By determining his action was not major, Secretary Watt has managed to avoid making any analysis of the regulatory impact of his decision; and by concluding his action "will not have a significant economic impact on a substantial number of small entities," he has avoided any analysis of the effect on small entities. Decisiveness may be a virtue, but recklessness is not. The wisdom of making a decision without input from anyone except the regulated industry is questionable.

The latest available data -- supplied by the Equal Employment Opportunity Commission -- indicates that while the oil industry is not necessarily the worst industry in America with respect to its record of hiring women and minorities, its record is below average for all U.S. private industry in 29 of 30 categories, and well below the average in many.

The record of the industry in correcting this situation is mixed. Some companies have affirmative action programs operating and have made a conscious attempt to recruit minorities. Others have not done as well. But between 1975 and 1979 there is a record reflecting only slight industry-wide improvement. However, the data collected under federal law also points up areas in which improvement has not occurred -- sales and service positions. By collecting this data, the efforts of companies to understand the situation and improve their record is assisted. Even if there were no identifiable discrimination in hiring, we would still need a regulation barring racial or sexual discrimination in contracting. While many companies have made efforts to improve their hiring and contracting policies, repeal of this regulation rewards those companies that have done nothing.

I urge you to remove the doubt which Secretary Watt's action creates as to your Administration's commitment to equal employment opportunity by promptly reversing the Secretary's ill-advised proposal to repeal this regulation.

Sincerely,

Alan Cranston

Alan Cranston

ALAN CRANSTON
CALIFORNIA

United States Senate
WASHINGTON, DC 20510

March 13, 1985

Honorable William E. Brock
United States Trade Representative
600 17th Street, N. W.
Washington, D. C. 20506

Dear ~~Ambassador Brock~~ Bill–,

I share the concerns raised by many of my colleagues in the House of Representatives in a recent letter to you that the current steel negotiations being conducted with Japan and the Republic of Korea may exempt offshore drilling platforms and component parts from the fabricated steel quotas.

I did not favor restrictions on steel imports because of the injury import restrictions would cause to the California economy. But since President Reagan has imposed voluntary export restraints on steel, I believe every effort should be made to insure the restraints are fairly applied. Some of my constitutents believe an exemption for offshore drilling rigs would disproportionately affect the West Coast, wiping out this market for California and Gulf Coast suppliers.

I urge your inclusion of restraints on the shipment of offshore oil platforms and their component parts in the finalized voluntary restraint agreements with Japan and the Republic of Korea. I would appreciate knowing your views on this matter before negotiations have concluded.

With best regards,

Sincerely,

Alan

Alan Cranston

LOS ANGELES COUNTY
(Ontario, Upland and Chino included)
DISTRICT COUNCIL OF CARPENTERS
UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, A.F.L.-C.I.O.
500 SOUTH VIRGIL AVENUE, SUITE 125 ● LOS ANGELES, CALIFORNIA 90020 ● 385-1457

[redacted]

DOUGLAS J. McCARRON, President
PAUL MILLER, Secretary-Treasurer

PRESENTING LOCAL UNIONS

25 Los Angeles
42L Santa Fe Springs (Lathers)
530 Los Angeles (Industrial)
563 Glendale
710 Long Beach
721 Los Angeles (Cabinet Makers and Millmen)
769 Pasadena
844 Canoga Park
929 South Gate
052 Beverly Hills
125 El Monte (Floorworkers & Roofers)
140 Harbor City
400 Santa Monica
407 Wilmington (Lumber and Sawmill Workers)
437 Compton
478 Redondo Beach
497 East Los Angeles
506 Los Angeles
507 El Monte
553 Hawthorne (Electronic & Space Technicians)
607 East Los Angeles (Millwrights & Machinery Erectors)
752 Claremont Valley
913 Van Nuys
976 Los Angeles (Boyle Heights)
231 Los Angeles (Public Service Carpenters)
288 Los Angeles (Lumber and Sawmill Workers)
375 Wilmington (Pile Drivers)
431 Long Beach (Naval Shipyard)
435 Inglewood
161 Maywood (Furniture Workers)

July 22, 1985

Honorable Alan Cranston
United States Senate
Washington, D.C. 20515

Dear Senator Cranston:

I am writing to request your assistance in redressing a serious problem affecting the jobs of American workers on the Outer Continental Shelf. The specific problem which we are concerned with the is the hiring of a foreign firm, Heerema Marine Construction S.A., by Texaco to construct oil drilling platforms off Point Conception, California. The company is a Dutch firm employing workers from Spain and the Netherlands.

Beginning in 1953 with the passage of SB 1901 [83rd Cong., 1st sess.] Congress has consistently taken legislative action to protect the jobs of American workers in relation to the Outer Continental Shelf. Again in 1977/78 the Outer Continental Shelf Lands Act was amended to expand the scope of protections from "fixed structures" to include "all installation and other devices permanently or temporarily attached to the seabed." Rather than go into a detailed narration in this letter of how the intent of this legislation has been subverted by the current Administration's interpretation of the administrative provisions I am enclosing a detailed outline.

The point is that qualified American workers are unemployed as a result of a refusal by the federal government to enforce the legislation passed by Congress for this very reason. I am sure that you share our commitment to the protection of American workers and I look forward to hearing from you in the near future.

Sincerely,

Paul Miller

Paul Miller,
Secretary Treasurer

PM:kp opeiu#30
encl.
cc: P. Campbell
A. Ramos
V. Hollins

UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA

LOCAL UNION No. 2375
PILE DRIVERS, BRIDGE, WHARF AND DOCK CARPENTERS,
WELDERS, RIG-BUILDERS, DRILLERS AND ROTARY HELPERS,
MARINE DIVERS AND TENDERS

[illegible] LAGOON AVENUE
WILMINGTON, CALIFORNIA [illegible]

(213) [illegible]

JUL 22 1985

July 19, 1985

Honorable Alan Cranston
45 Polk Street
San Francisco, California

Dear Senator Cranston:

I am writing to you to bring to your attention a problem the Pile Drivers Local Union #2375 finds most intolerable - the use of foreign workers on marine construction projects on the United States Outer Continental Shelf.

Texaco Oil Co., for the second time in four years, hired a foreign company to build an oil producing platform to be used off the California coast.

Presently, this oil drilling rig is being installed twelve miles off Point Conception by a Dutch firm (hired by Texaco) employing undocumented workers from Spain and the Netherlands.

Why are foreign companies being awarded these multi-million dollar contracts and why are foreign crews being allowed to install platforms off the California coast?

During these times of escalating tax deficits why are "Big Oil" companies allowed to award foreign contractors U. S. construction projects, based not on merits of good management, good engineering, good design and quality craftsmanship, but rather, based solely on the advantage of hiring cheap labor from abroad and the opportunity to AVOID paying State and Federal taxes?

During these times of high unemployment foreign workers should not be allowed to take jobs from Americans!

As my elected official, I would appreciate being informed of any action your office takes to rectify this situation.

Sincerely,
PILE DRIVERS LOCAL UNION #2375

Virgil C. Hollins
VIRGIL C. HOLLINS
Business Representative

VCH:em
opeiu#30
afl-cio

The **CHAIRMAN**. Thank you, Senator.
Congressman Tauzin.

STATEMENT OF HON. W.J. (BILLY) TAUZIN, A U.S. REPRESENTATIVE FROM THE STATE OF LOUISIANA

Mr. **TAUZIN**. Mr. Chairman and Members of the Senate, this is not a California issue. This is a national issue, and when the Secretary of the Interior met behind closed doors with the delegation from California, he almost bound the Nation into an agreement it would have had great difficulty living up to, particularly since that agreement would have derogated substantially from the national goals and aims of the national policy of offshore leasing contained in the latest amendment.

Let me quote the act to you. The act says that the purposes of the act were to establish policies and procedures from managing the oil and natural gas resource of the Outer Continental Shelf which were intended to result in expedited development, exploration and development of the Outer Continental Shelf in order to achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments in world trade.

Now, I ask you, are any of those goals being achieved today in terms of the implementation of the National Offshore Drilling Program? The answer is obviously no. The 5-Year Leasing Program has become, because of moratoria, such as has been suggested by the California delegation, a gulfwide leasing program.

Over 90 percent of the offshore development is occurring off the coast of Louisiana and Texas, and that has been the case for a long time now. When the Congress of the United States through the appropriation process allows one delegation to tack on a moratorium which prohibits development offshore one State, then that process is being used indeed to repeal or change dramatically portions of a very delicately nationally balanced act that contains—and I want to quote to you the following language.

"The timing and location of the exploration, development, and production of oil and gas among the oil and gas bearing geographic regions of the Outer Continental Shelf shall be based on a consideration of an equitable sharing of developmental benefits and environmental risk among the various regions."

Now, is it equitable for a large delegation with the weight and leverage of its numbers to get into a situation where because it is able to stick moratorium provisions onto appropriation measures 1 year after another, to get into a position where it can lever the Department of the Interior into a 15-year agreement that it will not develop its offshore resources, in fact, to enter an agreement that only 5 to 10 percent of the resources available off that coast would be available for development among the 159 tracts?

The Interior Department, once it looked at this preliminary agreement that it almost entered into, and talked to people who would be responsible for carrying it out, the oil and gas industry, who would actually have to invest some money into those offshore rigs, determined that not only was there a severe limitation of only 5 to 10 percent of the resources off the California coast that might be available for drilling and exploration in the 150 tracts selected by the California delegation, but even worse than that, the industry indicated that it wouldn't risk the capital to invest drilling rigs on those 150 tracts, because it was likely that the 150 tracts would not permit a feasible, efficient development of resources that might be located.

Let me explain that to you just a second. If one of the tracts selected by the California delegation and almost imposed upon this Nation in this agreement almost confected with the Interior Department were to contain some resources and the indications were that the resources extended out onto other tracts that ought to be developed, but those other tracts were subject to a 15-year moratorium, the likelihood of a company investing on the single tract selected by the California delegation would be very small indeed. That is what the Interior Department learned when it began to examine what it almost got into in this closed door session with the California delegation.

I have got a lot of friends in the California delegation, and I can understand why my friends in the California delegation are protecting some concerns and interests expressed by constituents back home. That is part of our responsibility. But we have a larger responsibility when it comes to offshore development. The larger responsibility is indeed defined in the act.

It is a responsibility to make sure that the resources of this Nation's Outer Continental Shelf are available for the people of this country instead of resources developed in other countries that are less stable and less reliable.

I ask my colleagues and those of you in the Senate panel to think back on the seventies when we were about 50 percent dependent upon foreign sources, and when the same region of the country—of the world, rather, that we are beginning to become dependent upon again decided that our foreign policy did not suit them, and they turned the spigots off.

What dramatic impacts it had not only upon the consumers at the gas station but upon this whole economy, and the tremendous inflation that ensued as a result of that 1970's experience.

We are heading in the same direction, gentlemen. All of the indicators are there. The EIA estimates that by 1990, possibly 1995, we will be in the range of 50 to 62 percent dependent upon foreign sources, even worse than we were in the seventies. And the industry estimates confirm the EIA estimates by about 48 percent dependency by 1990.

That kind of dependency is not good for this national health. And one delegation ought not stand in the way of this Nation avoiding that kind of a problem again. Gentlemen, when we talk about the balance of trade, when we talk about the issues of Americans being out of work today in growing numbers, we have to consider that one-half of the balance of trade is deficit, is made up of energy imports.

We are allowing Americans to go out of work—and four jobs are created onshore, by the way, for every job created offshore—while we create these kind of moratoria and this kind of stumbling block to offshore development.

It is bigger than California, if there is anything bigger than California. It is national. It concerns us all. All of us depend upon a stable economic system. All of us depend upon energy resources. And all of us, unfortunately, become dependent upon sources that are not so reliable, and upon a source that is robbing Americans of jobs daily.

And when you turn to the other section of the act, you find the act calls for equitable sharing of development and environmental risk. Now, we in Louisiana have taken a lot of the risk of offshore development. It has not all been good. A lot of it has been excellent.

I can testify to the benefits of the offshore fishing industry. You want to catch a boatload of speckled trout or redfish or red snappers. You come offshore Louisiana. We will show you where they are located, most of them by the rigs.

That is not a problem for us. But we have suffered some real damages in offshore development. One of the things we are suffering, for example, is a movement of the industry from the State waters into the Federal waters. We don't collect a dime of taxes in Federal waters. We don't collect a dime of royalties or income. We are fighting over a small portion of AG revenues right now.

But for the most part, as the industry moves further and further into the Federal offshore our State loses its tax base, and we also see our State shoreline eroding by about 50 square miles a year, some of it attributable to the fact that we have opened up our offshore to development.

Now, we have taken those risks. We have taken them indeed for the sake of the development that it has caused in Louisiana, but we are also mindful of the national obligation to develop those resources in the national interest, and I call upon you in the Senate panel and all my colleagues in the Congress to consider that national purpose here.

If one State can thwart the national program because of the size of its delegation, and can get the Secretary of the Interior almost to buy a dead horse, almost to buy an agreement which would spell no development off an important resource base in this country's offshore, then I suggest to you we will be in trouble as a nation.

We can't allow that to happen. The national act does not permit the State veto, and shouldn't. The national act ought to call upon all of us to shoulder equitable parts of the responsibility and parts of the duty that is owed this Nation to be energy independent and energy sufficient.

Gentlemen, let me ask you to consider also the fact that a moratorium is not called for. There is no plan to lease any tracts off of California for the next 2 years. If the Secretary of the Interior were able to confect an agreement with the California delegation hopefully that meets with the approval of the entire Congress, nothing could happen off the California coast for years. There is no need for a 1-year moratorium.

If there is one purpose to a moratorium, I suggest to you it is to give that State and that delegation the kind of leverage it can have and almost had in forcing the Interior Department to agree upon a plan that was not in this Nation's best interest, luckily for all of us. Thank God the Interior Department saw the lack of wisdom in that almost agreement they confected, and luckily for all of us they backed away from it in the national interest.

Let's not give any State, Louisiana, Texas, California, any one of us the kind of leverage that would produce that kind of agreement outside the national interest again.

Thank you very much, gentlemen.

The CHAIRMAN. Thank you very much.

Senator Wilson.

STATEMENT OF HON. PETE WILSON, A U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator WILSON. Thank you very much, Mr. Chairman.

Mr. Chairman, I have listened with great interest to our colleague from Louisiana, and with all respect to the argument that he makes that this is truly national in scope, I would suggest that on other matters where he may be a champion of States rights, he would probably be offended were someone from outside his State to suggest how Louisiana should harvest its resources or decide not to.

And it isn't that I missed the point that California cannot declare itself Camelot and therefore off limits to a national effort at energy self-sufficiency. What I think is more to the point is that a great deal is being made in somewhat contradictory assertions by the industry and by those who are spokesmen for competing industries like tourism with regard to the actual resources that exist in the California Outer Continental Shelf.

Interestingly enough, though, the best information that seems to exist would indicate that there has been a somewhat exaggerated expectation with regard to what will be produced by exploration and development of Outer Continental Shelf oil and gas reserves off the California coast.

There seems to be the argument being made that only if we can harvest this rich yield will we avert a dependence on foreign oil. Now, the members of this committee are knowledgeable about the reserves that exist. They are more knowledgeable about the degree of our dependence on oil imports.

I don't think anybody on this committee could make the assertion realistically that California holds the key to averting a continued dependence on oil imports. There simply is not that much oil there from all of the best estimates of those who are most eager to find it.

So, let's not delude ourselves that what we are talking about is either an immediate crisis, and I have by no means minimized the necessity for as much energy self-sufficiency as we can achieve, but I will say that to put this, to cast this argument in terms of California's preserving its pristine coastline at the cost of energy self-sufficiency is simply to cast this in a false light.

I think it is also fair to say that if we are going to make the argument that California must be a partner and must share in the requirement for national energy self-sufficiency, then it is also fair to contrast the situations of different coastal States in terms of the very nature of their Outer Continental Shelf resources.

I think that those in the gulf enjoy a particular good fortune in that shallow waters off their shores have made it possible for oil companies to drill in shallow water far out to sea. Now, that situation just does not exist in California. And that is because our Outer Continental Shelf falls away very sharply. It descends steeply.

And that, of course, in turn means that the interest of the oil company is in those tracts nearest shore, and because of that, the risk of air pollution, the risk of oilspills, all of the onshore impact that is necessarily a part of the exploration and development of oil and gas in the Outer Continental Shelf poses a far greater danger to California than it does to Louisiana or to the mid-Atlantic States or to the western coast of Florida.

Now, there is no great value judgment to be made. That is a statement of fact. But what it does dictate, I think, is a proper caution on the part of those who would develop those resources, and clearly on the part of those who will be impacted by that development.

And here we come to grips with another harsh reality, and that is that we are talking about a very substantial population crowded along the coastal zone of California where the chief industry is tourism, and it is not just those engaged in that industry, but those who represent them, and not just in the Congress but in local governments and in the State government who have put up a nearly united, if not unanimous front, stating that a special caution must be exercised.

The result is that we sought earlier this year to come to an agreement with the Secretary of the Interior, and commended him at the time that we announced that agreement for the rather forthcoming attitude that he had displayed throughout extended negotiations which were based on data provided by the Department of the Interior.

Now we are told that the good Lord should be thanked because wisdom has arrived. It has intervened just in time. Well, you can understand that those of us who were a party to those negotiations take a different view.

We feel that a careful compromise was negotiated, one that would permit exploration and development in an orderly fashion, but with a regard for the special circumstance that exists in California that does not exist off the mid-Atlantic or indeed in almost any other situation for other coastal States.

The fact of the matter is that agreement did not say that there would not be oil and gas development. It said there would be, but it said that it would occur in certain areas, and that ultimately other areas would be available, but that in the interval there would be protection, and part of the protection we will tell you explicitly was an effort to buy time for the development of a technology which has been a changing art.

There is no question that the development of oil and gas is a technology that has undergone change in the last decade, in the last two decades. We expect it will undergo further change in the next decade, and what we are saying is that there is a coastline in California that we feel is fragile. It is very much inhabited. It is a coastline in which a very considerable amount of economic activity takes place.

We are not concerned purely from the standpoint of aesthetics. We are concerned because the industrial activity offshore already contributes very considerably to the air pollution in air basins that are highly subject to inversion.

The kind of thing that we must be concerned about is that we do not add to the point where we are being told by another Federal agency, the Environmental Protection Agency, that in fact no further industrial development can occur. So for those who are saying that we must proceed without Outer Continental Shelf development in the name of jobs, we would have to say that in California again our special circumstance onshore is that we experience a higher degree of air pollution, and because of national standards, we are facing the very definite prospect of a limitation on our job creating capacity.

Now, when we are already approaching ambient air levels that do not permit additional economic activity, and we are faced with the virtual certainty of those being added to by prevailing winds that blow from rigs offshore, then we can't simply ignore the fact that we may put people out of work or at the very least forestall economic development of a kind that we are desperately seeking in order to accommodate a growing population in California and what is now a minination of 25 million people who, we are told, by 2010 will be 40 million.

So, let me assure you that we are concerned with the economic base to supply those people with the good life, and a part of their quality of life very clearly is employment. So do not think that we are aesthetic elites asserting a special privilege for Californians that we do not wish to share with the rest of the world.

Indeed, we share it with the rest of the world virtually in every season, especially in the summer. I note several of my colleagues who are no strangers to California, and they are welcome there, as are the people who come each year from their States.

We are the most immigrant State of the most immigrant Nation of the world, and proud of it, but gentlemen, this is a more complex situation than has been portrayed or can be portrayed by simply asserting that it is California protecting its coastline against the national interest in energy self-sufficiency.

The reason that Californians feel as they do, and most do, 4-to-1 in the congressional delegation, and certainly better than half by the latest poll that has been taken, is because there is a very great amount riding on it. So, with that, I urge you to understand why it is that this negotiation, which was not quickly, easily, and cavalierly achieved is one that the California delegation continues to assert with the vigor that you are going to hear today.

It is important to all of us. But it is important enough that we think that California's Outer Continental Shelf is entitled to the special protection that this agreement would have provided, and at the same time it would be available, certainly available in the case of an emergency under the same kind of objective criteria that has been established in the law for tapping other sensitive oil and gas resources.

Thank you very much, Mr. Chairman.

The **Chairman**. Thank you, Senator.

Congressman Panetta.

STATEMENT OF HON. LEON E. PANETTA, A U.S. REPRESENTATIVE FROM THE STATE OF CALIFORNIA

Mr. **PANETTA**. Thank you very much, Mr. Chairman and members of the committee. Thank you for the opportunity to testify. I would ask that my statement be made a part of the record.

The **CHAIRMAN**. It will be made part of the record.

Mr. **PANETTA**. I would like to summarize it, if I may.

I am one of the members of the delegation who was present at all negotiations with the Secretary, and I think it is important for all of you to understand the process that was involved as well as the elements of the agreement that was arrived at with the Secretary in order to better understand, I think, the position of the delegation, and our effort to try to find a balance.

Let me make very clear, and I don't think there is any member on the delegation, those who supported the agreement and those who opposed it, who in any way want to lock up the California coast. That is not the purpose, and I want to make that very clear, and I think that is the position of both Senators, and it is the position of the delegation.

We are not interested in locking up the coast. We are also not interested in selling it all, either. Our interest is in finding a balance, and I think that really is the intent of the OCS Lands Act, is to find that balance, that stewardship between what should be developed and what ought to be protected.

That is our responsibility. It is not the responsibility of the oil company. Very frankly, it is not the responsibility of the environmentalists. It is our responsibility in Government to try to find that balance.

What happened a few years ago is that a billion acres were put up for sale without any exceptions. I can recall Congressman Clausen and myself going to then Secretary Watt and asking as we had previous Secretaries to make some exceptions along the coast and to go ahead and proceed with drilling in some areas.

He refused to do that, and as a result of that, we started a period of confrontation without question, confrontation in the courts, confrontation here in the Congress in passing moratoriums, a confrontation step by step in that whole effort.

I don't think that was in the national interest, and I don't think that was in the interest of California, and the result of that is clearly something that has impacted energy policy. It has impacted the taxpayers, and it surely has impacted people's trust in the ability of Government to solve problems like this.

Secretary Watt did not agree to negotiate with us at any time. We asked Secretary Clark to do that. He never responded to our invitation to negotiate. Finally, with Secretary Hodel, we thought we had the opportunity, because at his invitation we attended a breakfast, and he urged that we begin some effort to try to find a way out, to try to resolve this issue, and we agreed that that was the approach we ought to take.

So, we began a series of meetings with the delegation. All the members were invited to participate in those negotiations. It took 6 weeks, over 20 hours of constant negotiation with the Secretary and with the staff dealing with some very tough issues. This is not an agreement that was arrived at very lightly, let me assure you.

Our approach was that the Secretary and the Interior Department would present details and evidence regarding the tracts that were of interest to the Interior Department and, we assumed, to the oil companies.

We would present on the delegation's part the arguments on economics and the environmental impact, and our hope was by balancing these interests if there were areas that were of high oil interest and low environmental interest those would be easy to decide, and those that were of high environmental interest and low oil interest, those would be easy, and it was the ones that were just about equal that would obviously be the tough decisions, but we had to go through that process, and we did.

The Interior Department presented maps outlining the areas of interest that they were concerned about.

Now, let me also point out you often hear the term about 6,400 tracts. Well, the fact is that about 400 to 500 are the only possible areas for any kind of drilling. The majority of those 6,000 lie in 700 meters or beyond. It is all deep water. So basically we were looking at somewhere in the vicinity of about 400 to 500 tracts initially.

When we got down to the bottom line, the Interior Department presented to us 210 tracts that they were interested in. That was their bottom line, 210 tracts. We started off at 63, saying that those were as far as we could go. We eventually at the last session with the Secretary came up to 150 tracts.

Those 150 tracts were selected based on information provided by the Interior Department. That is not information that we have available to us in the delegation. I wish we did. We had to rely on information that was presented by the Interior Department. They presented maps that outlined the tracts that were high potential.

Of the 150 tracts, 138 are high potential as presented in these maps, as put together by the Interior Department, and that is what we relied on, so ultimately in arriving at the final agreement, we relied on information that was presented to us from Interior.

Now, the agreement is described, and I concur in the description that it was a preliminary agreement. But both words are operative. It was preliminary, and it was clearly an agreement. It was preliminary in the sense that there were a few tracts that we had not finalized, those off of Newport Beach, those off of Oceanside, and a few off of the area that was off of Long Beach.

And we said we would have to take another look at those tracts and look at the evidence to assure that we had the right tracts. That was one area that we were willing to negotiate further on.

The second was on a national trigger. For the protection of the remaining tracts until the year 2000, we established the national energy trigger. Our proposal was that we use the SPRO language, trigger in the SPRO area. The Secretary said he would have to take another look at the exact language and see how we could work that out.

We agreed that that would be an issue we would negotiate, but that agreement was specific in every other way. We agreed as to the 150 tracts. We presented it on a map at the press conference when we announced it. Everybody knew where those 150 tracts were located. We agreed to the time of protection until the year 2000 with the energy trigger, and we agreed that we would provide three test wells in basins where nobody knows what the potential is, frankly.

The three test wells were for the purpose of analyzing an inventory, what is the potential of those basins, so that we could decide beyond the year 2000 what would happen in those very important basins, particularly the environmental impact in areas like the Mendocino coastline and the Santa Cruz coastline and the Bodega coastline.

Those are the terms of the agreement. They were written. They were included in the committee language. They are included in a letter from the Secretary. We announced it with both U.S. Senators and the presence of a bipartisan majority of the delegation at a press conference with the Secretary.

Let me tell you. I was trained here in the Senate as a legislative assistant to Senator Kuchel, and one of the things you do is, when you put your word down that you are going to be with an agreement, you stick to it. That is the name of the business here on Capitol Hill.

And the fact was that we had an agreement, and with some adjustments we were going to stick to it. The Secretary himself described it as a landmark agreement.

I don't know how many of you are lawyers, but I am often reminded of the clients I had who came in after signing a contract saying that they didn't know what they were signing, even though the contract was very clear, even though they put their signature on the contract, and they wanted you to get them out of the contract.

Well, the fact was that we had a deal. And we didn't work for 6 weeks and 20 hours to come up with nothing.

Senator BUMPERS. Where is the Governor in all of this?

Mr. PANETTA. The Governor had initially said he was appreciative of the fact that he had worked it out. He did not support all of the elements of the agreement, but on the other hand he did not attack the agreement. So I guess the best statement is that during the time that we had finally put the agreement together he was neutral on it.

We did have the support, I might say, on that agreement during the course of these hearings of almost 27 communities who supported it, the majority of the counties along the coastline supported it. As we have said over and over again, a majority, almost 75 percent of the delegation supports it, with both U.S. Senators.

The Lieutenant Governor supports it. The Attorney General supports it. Legislators support it. So there is a vast amount of support for the agreement. This agreement was attacked on both sides. It was attacked by environmentalists, and it was obviously attacked by the oil companies.

We were protecting our base. I don't make a deal unless I know I have covered myself in terms of my constituency. I went back and talked to the local officials. I went back and talked to my local government people. I frankly assumed the Secretary was doing the same thing. I did not assume that the Secretary was going to agree to anything unless he had cleared it with the interests that were concerned about this issue.

And so, we assumed that everybody was clearing it with their various constituencies before we went ahead and announced the agreement. Now, we have since that time been through what I would call—best describe as OCS Wonderland. What has happened is a series of statements that have ranged from support of the agreement to total abdication from the agreement to the description that we had never had an agreement at all.

It began with saying we had the wrong 150 tracts. If we have the wrong 150 tracts, gentlemen, it is because the Interior Department doesn't have the right information on what tracts have oil potential. It is certainly not our fault that the wrong 150 tracts were not on the table. We selected them based on the maps that were presented from Interior.

The Secretary then said we had no agreement. The Secretary said the timeframe was too long. The Secretary said that test wells are not very good, so that gradually every element of the agreement we had arrived at was basically thrown out the window.

Now, let me just conclude by saying this. Nothing has changed. The facts haven't changed. Positions may have changed. But the facts haven't changed. Reality is that those tracts and the information on those tracts remains the same today as it did 30 days ago, as it did 60 days ago.

I haven't seen any new evidence that the tracts that we have selected as a result of recent information don't hold the potential that they said they held before. I haven't seen that information. I will be glad to see it, and I hope the Secretary ultimately presents it.

We have seen no new evidence, and I don't think they have any new evidence. I know the tracts they are interested in. They are interested in tracts off of northern California, off of Puenta Arena, off of Bodega, off of Santa Cruz, and those are the areas that are of concern to the delegation. That is what we fought over for 6 weeks.

So, there is nothing new that they are going to present.

Second, I want to make clear California's role in this effort. California is producing about 2.1 million barrels of oil per day. And we have right now with or without this agreement the potential of increasing offshore oil drilling 500 to 800 percent just in the area on the Santa Maria Basin, which is already available to oil companies.

So, there is a growth area for offshore drilling in California right now, with or without this agreement.

Third, I want to reemphasize the fact that the moratoriums are not at the heart of the problem facing the oil industry. I have heard that over and over again. That is baloney. We know what the problem is with the oil industry. It is price. And as a consequence of that they are cutting back on their operations in Oklahoma, they are cutting back on their operations in Texas, in Louisiana, and in California, because of price.

Moratorium has absolutely nothing to do with that issue. The reality is that even with the moratorium on, we have opened up 170 million acres for them to go after containing about 70 percent of the hydrocarbon capacity that we have available.

And last, on the economics—both Senators have referred to this—we do care about economics. The result is, we had a million people involved in tourism and fishing jobs in our State. Now, admittedly, I understand that there is a way to try to work your way around it so that they don't impact on those jobs, but you need onshore facilities. You need industrialization of onshore areas.

Our communities don't want that. They want to stick with tourism. They have a right to decide that even under the OCS Lands Act. We are supposed to listen to those communities and try to balance their interests. So, we are concerned about jobs.

There are about a million jobs that we have in the tourism industry, which is 20 times more, I might say, than what we have in the oil industry, which is about 40,000 jobs, so we are interested about jobs. Let's get that clear.

What are the lessons here? The lessons are this. One, we don't have a very good OCS policy in this country right now. It is a haphazard hit-and-miss operation, and I think the committee needs to look at that.

Second, if what the Secretary says is true, then we don't have very good information about what is out there. We can't negotiate for 6 weeks and if he doesn't have the right information, something is wrong. That needs to be looked at.

Lastly, I want to assure this committee that our interest is in trying to negotiate this issue, not to engage in confrontation, but to try to negotiate it. That was our whole purpose these last few weeks, was to try to do that. We are willing to listen.

I don't want to kid anybody here that the credibility of the Secretary is somewhat open to question at this point, having gone through 6 weeks and having announced an agreement before. I don't want to kid anybody here that that isn't an issue. It is an issue.

But I am willing to try to work with him again to see if we can't find a solution. The Secretary himself has said the interest of this Nation is served by consensus in this area, not by confrontation, and that is my position as well.

[The prepared statement of Mr. Panetta follows:]

STATEMENT OF THE HONORABLE
LEON E. PANETTA
BEFORE THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
SEPTEMBER 17, 1985

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I WOULD LIKE TO THANK YOU FOR PROVIDING THIS FORUM IN WHICH TO EXAMINE THE IMPORTANT ISSUES RELATING TO THE AGREEMENT REACHED BETWEEN SECRETARY HODEL AND MEMBERS OF THE CALIFORNIA DELEGATION ON THE STATUS OF THE OFFSHORE LANDS CURRENTLY PROTECTED BY CONGRESSIONAL MORATORIA. AS THE COMMITTEE IS AWARE, THIS AGREEMENT HAS BEEN THE SUBJECT OF A GREAT DEAL OF CONTROVERSY AND, WHILE A BI-PARTISAN MAJORITY OF THE CALIFORNIA DELEGATION CONTINUES TO SUPPORT IT, THE SECRETARY HAS REJECTED THE PACT AS IT WAS ANNOUNCED ON JULY 16.

AS YOU KNOW, MR. CHAIRMAN, THE NEGOTIATIONS WHICH PRODUCED THE AGREEMENT WERE HELD PURSUANT TO THE INSTRUCTIONS OF THE CONFEREES IN THE 1985 INTERIOR APPROPRIATIONS REPORT LANGUAGE WHICH ACCOMPANIED THE FY 1985 LEASING RESTRICTIONS. THIS LANGUAGE STATED THAT:

> The managers will not continue...blanket moratoria in future years unless a case can be made that the pre-lease negotiations process with the Department of the Interior is inadequate to ensure that all resource values and Department of Defense needs are provided proper consideration and protection... The Department is urged to pursue a resolution of the long-term leasing status of these areas through continuing negotiations with the appropriate Congressional, state and local officials.

WHAT RESULTED WAS A GOOD FAITH EFFORT TO BREAK THE FOUR YEAR DEADLOCK ON THE ISSUE OF OFFSHORE OIL AND GAS DEVELOPMENT ALONG PORTIONS OF CALIFORNIA'S OUTER CONTINENTAL SHELF. IT IS OUR HOPE THAT THIS GOAL CAN STILL BE ACCOMPLISHED.

RECENT HISTORY OF CONGRESSIONAL INVOLVEMENT IN THIS ISSUE.

IN 1978 THE CONGRESS AMENDED THE OCS LANDS ACT TO 1) LIMIT THE SECRETARY'S DESCRETION WITH REGARD TO OCS LEASING AND DEVELOPMENT, 2)

INSURE THAT COASTAL STATES WOULD HAVE A STRONG VOICE IN THE DEVELOPMENT OF OCS LEASING PROGRAMS, AND IN LEASE SALES AND ACTUAL RESOURCE DEVELOPMENT AND, 3) TO INSURE THAT COASTAL ENVIRONMENTAL AND ECONOMIC CONCERNS WERE ADEQUATELY ADDRESSED.

DURING JAMES WATT'S TENURE AS SECRETARY THESE CONCERNS OF THE CONGRESS WERE LAID ASIDE IN FAVOR OF MAXIMIZING THE OCS ACREAGE AVAILABLE TO THE OIL INDUSTRY FOR LEASING AND DEVELOPMENT. THE RESULT OF SECRETARY WATT'S POLICY WAS AN OCS LEASING PROGRAM TIED UP BY LITIGATION, AND IN THE CASE OF CALIFORNIA AND MASSACHUSETTS, CONGRESSIONAL MORATORIA. IT WAS THE FEELING OF COASTAL MEMBERS THAT IN THE ABSENCE OF A RESPONSIBLE DEVELOPMENT POLICY, CONGRESS WOULD HAVE TO PROVIDE THE BALANCE REQUIRED BY THE OCS LANDS ACT AMENDMENTS.

THE ORIGINAL CALIFORNIA MORATORIUM IN 1982 WAS ENACTED IN RESPONSE TO SECRETARY WATT'S RENEGING ON AN AGREEMENT REACHED BETWEEN THE DEPARTMENT AND THE GOVERNOR OF CALIFORNIA TO EXCLUDE FROM LEASE SALE 53 A NUMBER OF THE AREAS NOW AT ISSUE. CONGRESS RECOGNIZED THAT THE SECRETARY HAD ABROGATED HIS RESPONSIBILITIES UNDER THE LANDS ACT AMENDMENTS, AND STEPPED IN WITH AN UNUSUAL LEGISLATIVE REMEDY.

THE NEGOTIATIONS

WHEN SECRETARY HODEL TOOK OFFICE HE TOOK A NEW, AND FROM THE POINT OF VIEW OF A MAJORITY OF THE CALIFORNIA DELEGATION, MORE REASONABLE APPROACH TO OFFSHORE LEASING. THE SECRETARY SAID, AND I QUOTE, "I BELIEVE STRONGLY IN THE PROPOSITION THAT WE WILL SERVE THIS COUNTRY BEST IN ITS ENERGY REQUIREMENTS IF WE CAN ACHIEVE CONSENSUS ON PROGRAMS SUCH AS THIS RATHER THAN CONFRONTATIONS. A VERY AGRESSIVE OCS PROGRAM THAT IS LOCKED UP EITHER IN LITIGATION OR LEGISLATION DOESN'T SERVE THE COUNTRY WELL." WHILE THE SECRETARY'S PROPOSED FIVE

YEAR PLAN FAILED TO LIMIT THE MASSIVE SIZE OF THE LEASE SALES INITIATED BY SECRETARY WATT, CALIFORNIA'S COASTAL MEMBERS WERE ENCOURAGED WHEN HE AGREED TO MEET TO DISCUSS A LONGTERM SETTLEMENT OF THIS ISSUE.

THE ENSUING NEGOTIATIONS, OPEN TO ALL MEMBERS OF THE DELEGATION, PRODUCED AN AGREEMENT WHICH RETURNED SOME OF THE BALANCE TO THE PROGRAM REQUIRED UNDER THE OCS LANDS ACT. THIS AGREEMENT WAS WORKED OUT OVER A PERIOD OF SIX WEEKS, INVOLVING OVER TWENTY HOURS OF DISCUSSIONS BETWEEN THE SECRETARY AND A BIPARTISAN GROUP OF MEMBERS, INCLUDING BOTH SENATORS CRANSTON AND WILSON. THE PROCESS INVOLVED COMPROMISE AND SACRIFICE ON BOTH SIDES, AND THE RESULT WAS A PRELIMINARY ACCORD WHICH THE SECRETARY AND THE MEMBERS ANNOUNCED AT A JOINT PRESS CONFERENCE ON JULY 16.

THE PRELIMINARY AGREEMENT

THE AGREEMENT WOULD OPEN 150 TRACTS TO LEASING, 138 OF WHICH WERE IDENTIFIED TO THE MEMBERS BY THE SECRETARY AS BEING IN AREAS OF HIGH RESOURCE POTENTIAL. IN EXCHANGE FOR THESE TRACTS BEING OPENED, THE SECRETARY AGREED TO PROTECT THE REMAINING TRACTS IN THE CURRENT MORATORIA UNTIL THE YEAR 2000. THE AGREEMENT ALSO INCLUDED A NATIONAL ENERGY EMERGENCY CONDITION AND A PROVISION FOR THE DRILLING OF EXPLORATORY WELLS IN THREE OF THE PROTECTED BASINS.

AT THIS POINT, I WOULD LIKE TO ADDRESS ONE OF THE CENTRAL ISSUES OF CONTENTION RELATING TO THIS AGREEMENT. THE SECRETARY NOW CONTENDS THAT HE IN FACT NEVER AGREED TO ANYTHING, THAT HE WAS PARTY TO LITTLE MORE THAN ESTABLISHING A FRAMEWORK FOR FURTHER DISCUSSION OF THIS ISSUE. THIS WAS NEVER MY UNDERSTANDING, NOR WAS IT THE UNDERSTANDING OF TWO U.S. SENATORS AND 27 OTHER MEMBERS OF THE DELEGATION. THE

WORDING OF THE AGREEMENT AND THE SPECIFIC TRACTS TO BE INCLUDED WERE THE PRODUCTS OF A LONG AND DIFFICULT PROCESS OF NEGOTIATION. THE AGREEMENT WAS INCLUDED IN A LETTER FROM SECRETARY HODEL TO CHAIRMAN YATES OUTLING THE SECRETARY'S POSITION ON THE ACCORD. THE AGREEMENT WAS INCLUDED IN THE APPROPRIATIONS COMMITTEE REPORT FOR FISCAL YEAR 1986. THE TRACTS INCLUDED IN THE AGREEMENT WERE IDENTIFIED ON MAPS USED IN THE PRESS CONFERENCE ATTENDED BY THE NEGOTIATORS FROM BOTH SIDES, AS WELL AS ON DEPARTMENT OF THE INTERIOR MAPS.

THE SECRETARY CONTENDS THAT THE "PRELIMINARY" NATURE OF THIS ACCORD IN AFFECT NULLIFIES THE FACT THAT AN AGREEMENT WAS REACHED AT ALL. INDEED, THE "PRELIMINARY" ASPECT OF THE AGREEMENT RELATES TO THE FACT THAT SOME CRUCIAL AREAS REMAINED, AND REMAIN, TO BE WORKED OUT. BASED ON CONSULTATIONS WITH COASTAL COMMUNITIES, LOCAL AND STATE GOVERNMENT OFFICIALS AND OTHER INTERESTED PARTIES, THE MEMBERS RECOGNIZED THAT THERE WERE AREAS OF ADJUSTMENT THAT WERE ALREADY CONSIDERED DURING THE COURSE OF THE NEGOTIATIONS THAT MIGHT REQUIRE SOME FURTHER FINE TUNING. BUT THE MEMBERS NEVER INVISIONED A MAJOR REWORKING OF THE AGREEMENT IN THE AREAS OF DURATION OF PROTECTION OR FURTHER OPENING OF ADDITIONAL AREAS IN SENSITIVE NEARSHORE WATERS SUCH AS SANTA MONICA BAY, OR THE SANTA CRUZ OR POINT ARENA BASINS. IT IS OUR FEELING THAT POSSIBLE MODIFICATIONS, AS WELL AS MINOR CHANGES FROM A RESOURCE PERSPECTIVE, COULD BE WORKED OUT WITHIN THE FRAMEWORK OF THE PRELIMINARY AGREEMENT AND THAT A FINAL AGREEMENT COULD BE REACHED.

THE SECRETARY'S POSITION

SECRETARY HODEL'S STATEMENTS IN NORTHERN CALIFORNIA, AND HIS PERSONAL REASSURANCES TO THE MEMBERS, CONFIRMED THE FEELING OF THE NEGOTIATORS THAT MINOR MODIFICATIONS WERE IN FACT THE EXTENT OF THE

CHANGES CONTEMPLATED BY THE SECRETARY. ON AUGUST 20 SECRETARY HODEL SAID, "I SUSPECT THAT SOME MEMBERS OF THE DELEGATION MAY WANT TO GET ADVICE FROM THEIR DELEGATION THAT ONE OR ANOTHER OR SEVERAL TRACTS NEED TO BE MOVED OR REGROUPED. PERHAPS I CAN GET SOME INFORMATION TO SAY, "GREAT IF YOU WANT TO TAKE THOSE OUT, WHAT ABOUT THS ONE OR THAT ONE. I WOULD HOPE WE DON'T HAVE TO DO THAT TOO MUCH WITHOUT UNDERCUTTING THE EFFORT."

IT WAS NOT UNTIL THE SECRETARY BEGAN MEETING WITH OIL INDUSTRY OFFICIALS THAT THE MEMBERS BECAME AWARE OF AN EROSION OF HIS OFTEN REITERATED SUPPORT. AFTER ORCHESTRATED OIL COMPANY PRESSURE WAS BROUGHT TO BEAR AT TWO OF THE ELEVEN TOWN MEETINGS, THE SECRETARY WAS QUOTED AS SAYING, "I CERTAINLY NEVER SAID ANYTHING TO THEM ABOUT THE NUMBER OR TYPE OF MODIFICATIONS THAT I CONTEMPLATED."

THE RESOURCE ISSUE CALLS INTO QUESTION THE ABILITY OF INTERIOR FULLFILL ITS RESOURCE MANAGEMENT RESPONSIBILITIES.

RECENTLY, THE SECRETARY INFORMED THE DELEGATION THAT DURING THE COURSE OF THE TOWN MEETINGS HELD IN CALIFORNIA, HE RECEIVED NEW INFORMATION INDICATING THAT THE 150 TRACTS INCLUDED IN THE AGREEMENT DO NOT CONTAIN A RESOURCE WORTH DEVELOPING. HE STATED THAT THE RESOURCE INFORMATION PROVIDED TO THE CONGRESSIONAL NEGOTIATORS WAS BASICALLY INCORRECT AND THAT HE WOULD HAVE TO ABANDON THE ORIGINAL TERMS OF THE AGREEMENT. AT THIS POINT THE SECRETARY HAS NOT PROVIDED THE MEMBERS WITH THIS NEW INFORMATION. WHILE WE WOULD CERTAINLY WELCOME HAVING THIS INFORMATION SHARED WITH US, THE SECRETARY'S RECENT DISCOVERY OF NEW INFORMATION RAISES GRAVE CONCERNS ABOUT THE JOB BEING DONE AT INTERIOR ON THE OCS PROGRAM.

IF IT IS TRUE THAT THE SECRETARY OF THE INTERIOR ENTERED INTO

NEGOTIATIONS AND MADE AN AGREEMENT WITH MEMBERS OF CONGRESS, KNOWING THAT HE WAS WORKING FROM OUT OF DATE INFORMATION AND REALIZING THAT THE DEPARTMENT DID NOT HAVE ACCURATE RESOURCE DATA, I BELIEVE THAT THIS COMMITTEE, AND THE CONGRESS AS A WHOLE, HAS CAUSE FOR CONCERN. OTHER STATEMENTS OF THE SECRETARY WITH REGARD TO THE RESOURCE QUESTION ARE ALSO OF CONCERN. WHILE ON THE ONE HAND HE HAS STATED THAT, "WE REALLY WON'T KNOW WHAT'S OUT THERE UNTIL WE DRILL," HE IS WILLING TO STATE THAT HIS NEW INFORMATION INDICATES THAT ONLY FIVE PERCENT OF THE RESOURCE POTENTIAL WOULD BE UNLOCKED BY THE AGREEMENT. THE QUESTION IS, FIVE PERCENT OF WHAT? THE SECRETARY NEEDS TO INDICATE ON WHAT BASIS HE IS MAKING THESE VERY SPECIFIC STATEMENTS GIVEN THE UNCERTAINTY OF THE DATA HE HAS PROVIDED TO THE MEMBERS. THE FACT IS THAT INTERIOR IS THE ONLY PLAYER IN THIS GAME WHICH HAS ACCESS TO ALL OF THE AGGREGATE PROPRIETARY INFORMATION AVAILABLE TO THEM FROM ALL OF THE VARIOUS OIL COMPANIES. IF INTERIOR DOESN'T KNOW WHERE THE OIL IS, THEN SOMETHING IS WRONG AT INTERIOR.

THE GAO REPORT

ALSO DURING THE COURSE OF THE NEGOTIATIONS, THE GENERAL ACCOUNTING OFFICE ISSUED A REPORT WHICH SITES THE DEPARTMENT'S CURRENT APPROACH TO OCS LEASING AS BEING THE PRIMARY FACTOR IN RECENT LEASE SALES PRODUCING A MASSIVE SHORTFALL TO THE TREASURY. ACCORDING TO GAO, ON THE BASIS OF THE 13 MILLION ACRES LEASED IN THE FIRST 10 AREA WIDE SALES, THE FEDERAL GOVERNMENT RECEIVED ABOUT 7$ BILLION LESS THAN IT WOULD HAVE RECEIVED IF THE SAME ACREAGE WERE LEASED UNDER THE TRACT-SELECTION PROGRAM THAT HAD BEEN USED PRIOR TO WATT'S INITIATION OF AREA WIDE LEASING IN 1983. THE FACT THAT INTERIOR'S APPROACH TO OCS LEASING CONSTITUTES A FIRE SALE DESERVES

THE SERIOUS ATTENTION OF THIS COMMITTEE.

ECONOMICS AND THE JOBS ISSUE

AFTER THE MEETINGS IN BAKERSFIELD AND VENTURA, THE SECRETARY'S STATEMENTS IN THE PRESS TOOK ON THE FORM OF ATTACKS ON THE AGREEMENT. HE RAISED THE ISSUE OF JOBS AND SAID, "I DO NOT REMEMBER ON ANY OCCASSION THE ISSUE OF JOBS BEING RAISED. AND I'M CONVINCED IT HAS TO BE BROUGHT TO THE TABLE," AND, "CONGRESSMEN WHO CARE ABOUT JOBS, MINORITIES AND SMALL BUSINESSES MUST GET INTO THE NEGOTIATIONS."

IT SHOULD BE NOTED THAT THE MEMBERS' EFFORTS HAVE CONSISTENTLY FOCUSED ON PROTECTING THE COASTAL AND STATE ECONOMIES. OUR COMMUNITIES ALONG THE COAST HAVE ECONOMIES BASED ON AN UNPOLLUTED COASTAL ENVIRONMENT. THEY WANT TO KEEP IT THAT WAY. COASTAL DEPENDENT TOURISM BRINGS IN $16 BILLION ANNUALLY AND COMMERCIAL FISHING BRINGS IN CLOSE TO $2 BILLION. STATEWIDE, THE HOTEL AND RESTAURANT INDUSTRIES EMPLOY ALMOST 20 TIMES THE NUMBER OF WORKERS EMPLOYED IN OIL EXPLORATION AND EXTRACTION. THE ADVERSE AFFECTS OF OFFSHORE DEVELOPMENT ON AIR QUALITY, ONSHORE INFRASTRUCTURES AND THE VIEW REPRESENT AN UNNACCEPTABLE RISK TO THESE INDUSTRIES. AT THIS POINT THERE IS NO EVIDENCE TO SUGGEST THAT THESE CAN BE MITIGATED.

IT SHOULD ALSO BE NOTED THAT ANY EMPLOYMENT PROBLEMS EXPERIENCED IN CALIFORNIA'S OFFSHORE OIL INDUSTRY ARE NOT BEING CAUSED BY THE MORATORIA, AND WOULD CERTAINLY NOT BE EXACERBATED BY THE AGREEMENT. PRODUCTION FROM TRACTS ALREADY LEASED OFF CALIFORNIA IS EXPECTED TO INCREASE BY OVER 500% OVER THE NEXT FEW YEARS AND THE INDUSTRY IS NOW ENJOYING AN UNPRECEDENTED BOOM. UNFORTUNATELY THIS IS AN INDUSTRY WHICH HAS ONE OF THE POOREST MINORITY EMPLOYMENT RECORDS IN THE STATE. WHILE BLACKS CONSTITUTE 9.6% OF THE TOTAL U.S.

WORKFORCE, ONLY 4.3% OF THE CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRY WORKFORCE IS BLACK. (THIS COMPARES TO 8.8% IN FISHING, 16.5% IN THE HOTEL INDUSTRY AND 9.7% IN THE RESTUARANT INDUSTRY).

FURTHER, ALL OF THE JOBS REPRESENTED BY RIG AND PLATFORM CONSTRUCTION ARE BEING EXPORTED OVERSEAS. SINCE 1982, EVERY BID AWARDED FOR WEST COAST OFFSHORE PLATFORMS HAS BEEN PLACED WITH KOREAN OR JAPANESE FIRMS. IF ONLY ONE-THIRD OF OCS CONSTRUCTION CONTRACTS WERE AWARDED TO AMERICAN COMPANIES, IT IS ESTIMATED THAT OVER $6 BILLION WOULD BE ADDED TO THE GNP. FINALLY, LABOR UNIONS IN CALIFORNIA ARE COMPLAINING THAT THE RIGS AND PLATFORMS OFF THE SOUTHERN PART OF THE STATE ARE BEING MANNED BY UNDOCUMENTED FOREIGN WORKERS.

IN LIGHT OF THESE ECONOMIC AND EMPLOYMENT STATISTICS, IT IS CLEAR THAT THE OFFSHORE OIL AND GAS INDUSTRY HAS A DOUBLE STANDARD WITH RESPECT TO WHAT IS GOOD FOR MINORITIES AND AMERICAN WORKERS IN GENERAL. WHEN THE GOAL IS TO OPPOSE COMPROMISE ON THIS ISSUE, THE INDUSTRY HAS GREAT CONCERN FOR THE AMERICAN WORK FORCE AND OUR NATION'S ECONOMY. I ONLY WISH THEY WERE MORE CONSISTENT IN ADHERING TO THIS SELFLESS AND FAR-SIGHTED PHILOSOPHY IN THEIR HIRING AND CONTRACTING PRACTICES.

AMERICA'S ENERGY SECURITY

WITH RESPECT TO AMERICA'S ENERGY INDEPENDENCE, I WANT TO ASSURE THOSE CONCERNED THAT THE AGREEMENT IS PERFECTLY CONSISTENT WITH OUR NEED TO EXPAND DOMESTIC SOURCES OF OIL AND GAS. IN FACT, SINCE CONGRESS FIRST IMPOSED LEASING MORATORIA IN FY 1882, THE OCS ACREAGE OFFERED AND LEASED EACH YEAR HAS INCREASED DRAMATICALLY. THE AGREEMENT ADDS THE RESOURCE POTENTIAL OF PREVIOUSLY UNLEASED ACREAGE

TO CALIFORNIA'S CURRENT PRODUCTION OF 412 MILLION BARRELS OF OIL PER YEAR. WITH THE AGREEMENT IN PLACE, CALIFORNIA WILL BE PRODUCING OVER HALF A BILLION BARRELS OF OIL EQUIVALENT PER YEAR BY 1990. CLEARLY, CALIFORNIA HAS SHOWN THE WILLINGNESS AND THE ABILITY TO PROVIDE A SIGNIFICANT PORTION OF THE OIL AND GAS PRODUCTION AMERICA WILL NEED AS WE HEAD INTO THE NEXT CENTURY.

NO ANALYSIS OF OUR FUTURE ENERGY SECURITY WOULD BE COMPLETE WITHOUT A DISCUSSION OF ONE OF THE MOST FUNDAMENTAL INCONSISTENCIES IN THE REAGAN ADMINISTRATION'S NATIONAL ENERGY INDEPENDENCE STRATEGY. WE ARE OFTEN TOLD BY THE ADMINISTRATION THAT COASTAL STATE CONCERNS ABOUT THE ECONOMIC AND ENVIRONMENTAL SENSITIVITY OF CERTAIN OFFSHORE AREAS MUST TAKE A BACK SEAT IN THE NAME OF NATIONAL ENERGY INDEPENDENCE. AND YET, IN SPITE OF THIS RHETORIC, THE ADMINISTRATION PURSUES POLICIES WHICH ARE FUNDAMENTALLY INCONSISTENT WITH THE DRIVE FOR NATIONAL ENERGY SECURITY.

ONE NEEDS ONLY TO CONSIDER THE ADMINISTRATION'S PROPOSAL TO IMPOSE AN INDEFINITE MORATORIUM ON OIL PURCHASES FOR THE STRATEGIC PETROLEUM RESERVE, OUR NATION'S FIRST LINE OF DEFENSE AGAINST DISRUPTIONS IN FOREIGN SUPPLIES. THE ADMINISTRATION'S PROPOSAL WOULD LEAVE THE SPR MORE THAN 250 MILLION BARRELS SHORT OF THE 750 MILLION BARREL GOAL SET BY CONGRESS. IN ADDITION, THE PRESIDENT'S INCOME TAX REFORM PLAN WOULD TERMINATE, OR PERMIT TO EXPIRE, TAX CREDITS FOR ALTERNATIVE ENERGY INVESTMENT, RESIDENTIAL ENERGY CONSERVATION, RENEWABLE ENERGY, ALCOHOL FUELS AND ALTERNATIVE ENERGY PRODUCTION. FINALLY, THE ADMINISTRATION HAS SENT A CLEAR SIGNAL TO THE AMERICAN PUBLIC THAT FUEL CONSERVATION IS NO LONGER A PRIORITY BY RELAXING THE FUEL ECONOMY STANDARDS FOR AUTOMOBILE MANUFACTURES. THE DECISION NOT TO ENFORCE THE MILEAGE STANDARDS MEANS THAT AN EXTRA 1.54 BILLION

GALLONS OF GASOLINE WILL BE CONSUMED BY THE CARS SOLD BY FORD AND GM. OBVIOUSLY, IF THE ADMINISTRATION FEELS COMFORTABLE ENOUGH WITH THE ENERGY SECURITY OF OUR NATION TO PROPOSE THESE SHORT-SIGHTED MEASURES, THERE SHOULD BE NO OBJECTION TO DEVELOPING THE MOST SENSITIVE AREAS OFF OUR COASTLINE LAST INSTEAD OF FIRST.

CONCLUSION

MY HOPE AT THIS POINT, AS IT HAS BEEN OVER THE PAST FOUR YEARS, IS TO SEE A PROCESS ESTABLISHED WHICH MAKES EXTRAORDINARY CONGRESSIONAL INVOLVEMENT IN THIS ISSUE UNNECCESARY. THE PRESENT CONGRESSIONAL APPROACH IS ALLOWING THE OIL COMPANIES TO DICTATE NATIONAL POLICY ON OCS DEVELOPMENT. I WOULD LIKE TO SEE A PROCESS DEVELOPED WHICH INVOLVES THE COASTAL COMMUNITIES AND LOCAL AND STATE OFFICIALS IN A MEANINGFUL WAY. UNTIL RECENTLY, IT WAS THE HOPE OF THE MAJORITY OF THE CALIFORNIA DELEGATION AND, I SUSPECT, MEMBERS FROM OTHER COASTAL STATES, THAT THE PROCESS OF NEGOTIATIONS WHICH PRODUCED THIS AGREEMENT MIGHT REPRESENT A PRODUCTIVE STEP TOWARDS A MORE INCLUSIVE PROCESS.

UNFORTUNATELY, THE SECRETARY SEEMS TO IGNORE THE FACT THAT A MAJORITY OF THE COASTAL COUNTIES, 25 COASTAL CITIES, A NUMBER OF STATE LEGISLATORS, THE ATTORNEY GENERAL, THE LIEUTENENT GOVERNOR AND 75% OF THE CALIFORNIA CONGRESSIONAL DELEGATION SUPPORT THIS AGREEMENT. INSTEAD HE EMPHASIZES THE "NEW INFORMATION" PROVIDED BY THE OIL INDUSTRY WHICH, HE SAYS, MAKES IT IMPOSSIBLE FOR HIM TO SUPPORT THE AGREEMENT HE MADE IN JULY.

IT WAS THE EFFORT OF SECRETARY WATT TO GIVE THE OIL INDUSTRY WHAT IT WANTED, AND HIS BACKING OUT ON AN AGREEMENT REACHED IN GOOD FAITH WITH THE GOVERNOR OF CALIFORNIA, WHICH MADE THE FIRST CONGRESSIONAL MORATORIA NECESSARY. UNFORTUNATELY, IT IS SIMILAR ACTION ON THE PART

OF THIS SECRETARY WHICH FORCES THE DELEGATION ONCE AGAIN TO CONSIDER EXTRAORDINARY LEGISLATIVE ACTION. WITHOUT THE SECRETARY'S BACKING OF THIS AGREEMENT, THIS PROGRAM WILL CONTINUE TO BE STALLED IN THE CONGRESS AND IN THE COURTS. CALIFORNIA'S COASTAL COMMUNITIES, THE NATION AND FUTURE GENERATIONS OF AMERICANS DESERVE AN OFFSHORE DEVELOPMENT POLICY WHICH PROVIDES FOR A REASONABLE BALANCE BETWEEN ENVIRONMENTAL AND ECONOMIC CONCERNS AND WHICH INSURES A REASONABLE AMOUNT OF CERTAINTY OVER THE PACE OF DEVELOPMENT. I BELIEVE THAT THE AGREEMENT PROVIDES THE NECESSARY BALANCE AND CERTAINTY, AND CONTINUES TO BE DESERVING OF THE SECRETARY'S SUPPORT."

The **Chairman**. Thank you.

Congressman Barton.

STATEMENT OF HON. JOE BARTON, A U.S. REPRESENTATIVE FROM THE STATE OF TEXAS

Mr. **Barton**. Thank you, Mr. Chairman.

It is a pleasure to have the opportunity to testify before your committee today. It is always entertaining and interesting to follow my distinguished colleague, Congressman Panetta, who does a tremendous job in presenting his side of the case, and in many cases presents more than is even in his case.

I am going to try to attempt to refocus your discussions and deliberations on the issue at hand, and the issue at hand is quite simply whether a small number of members from one State delegation have the authority to decide themselves how to develop our national resources. In this case our national resource is the oil and gas potential off the coast of California in the Federal waters.

I come from the State of Texas, which, along with Louisiana, has been responsible for over 90 percent of the Outer Continental Shelf oil and gas production in Federal waters, and the people and members of our State delegations feel that we have done our share and will continue to do our share.

And we are hopeful that other States will do their share, and the true issue is whether it is in our national interest to, with all due process and with all concern for the environment and the developmental considerations, should we do everything we can to develop our domestic energy resources? I say we should.

Since I believe that we should develop our energy resources wherever they are, I think we need to end this moratorium that has been in existence for 4 years. We need to go off the coast of California, as we do off of Texas and Louisiana and Florida and Alaska, and if there is oil and gas potential there, we should explore for it, catalog it, and at the proper time develop it.

There has been much made of the fact that the moratorium doesn't affect that many acres, that much potential. I would point out to this committee that in the first year of the moratorium, there were 736,000 acres that were affected. Currently there are 54 million acres that are affected.

If we allow this tentative agreement to be implemented, we are basically putting off limits a large number of tracts that could lock up for at least the next 15 years 2 billion barrels of oil and 6 trillion cubic feet of natural gas.

As a Texan, and as the Republican Research Committee Task Force Chairman on Energy and the Environment, I was extremely upset when I learned that Secretary Hodel had entered into this tentative agreement. Much has been made—my distinguished colleague just said that an agreement is an agreement, and even if it is tentative, you still work out the details and you go ahead with it.

That is true if everybody is concerned and everybody is consulted with before you make the agreement. Not too many people were consulted on this agreement. To my knowledge, nobody from Louisiana, nobody from Texas—the ranking Republican member on the Interior Committee was not consulted. Very few members were consulted on this agreement.

So, it is only natural that once the agreement becomes public, that those that are opposed to it should begin to voice their concerns.

I have a letter here that was signed, and I will submit it for the record, by every member of the Texas congressional delegation, the Texas senatorial delegation, every member of the Louisiana congressional delegation, in opposition to the tentative agreement.

The only reason I am told that the two distinguished Senators from Louisiana did not sign this letter was because Senator Johnston and Senator Long wrote their own letter in opposition. That is 37 or 38 Members of Congress that are in total opposition to the agreement, and I will submit that for the record.

The CHAIRMAN. That will be made a part of the record.

Mr. BARTON. Why are we so opposed to it? There are several basic reasons. First, let's talk about the environmental objections. One of the things that are thrown out to say that we should not develop these resources off the coast of California is because of the environmental problems.

Well, the environmental problems, while serious, can be taken care of. Offshore oil and gas development in the last several years has basically been totally free of any oilspill because of the drilling. In 1984, 670 barrels, that is not 1,000, or 1 million but 670 barrels of oil were spilled on OCS drilling platforms.

We heard about the fishing industry. Senator Johnston well knows the best place to go fishing off the coast of Louisiana is the rigs. You go and you fish the rigs. You do the same thing in Texas. If you are going off of Galveston or off of Potter Island or off Corpus Christi or Freeport, you go off and you fish the rigs.

So, fishing in my State of Texas reached record levels in 1982, and that is after the Gulf of Mexico spill from the Mexican oil rig.

A second objection is that there could be permanent environmental damage in the case of a major oilspill. The Santa Barbara spill in 1969 was the most major spill we have had off the coast of California. Within a year there were no traces of that spill left. Scientific studies have shown there has been no permanent damage.

I mentioned back in Texas back in 1979 we had the big Mexican oilspill. In 1982, 3 years later, fish catches were at record levels, and again, there has been no permanent damage.

Another objection is that offshore platforms are a source of visual pollution, that they are aesthetically unpleasing, that they are not pretty to look at. Well, that may be true, but unless you stand on a mountain you are not going to see many of these oil platforms, because the Federal waters begin 7 miles offshore, and if you are on the beach you can only see 3 miles.

Now, if you stand up, and there are parts of the California coast that are above the ocean, and you can see out 7 or 8 or 9 miles, but unless it is an extremely clear day, even then you can't see them, and if you do they are mere specks on the horizon, so visual pollution is something that we probably can't do too much about.

But when you consider that right now there are only 1,000 OCS platforms in Federal waters that are operating, the probability is that at any given point on the California coast you may see one or two as a half-inch speck on the horizon, so don't consider that to be a major problem.

I guess to summarize my testimony I would like to point out to the committee that you have an obligation to develop our national resources. There is no doubt that if we find major oil and gas prospects, oil and gas bills off the coast of California, there will be industrial development on the coast.

That could cause some developmental problems, but when you consider the fact that we are consuming as a nation somewhere between 12 to 15 million barrels of oil per day in this country, and we are only producing somewhere in the neighborhood of 9 to 10 million barrels of oil per day, there is a gap there, and we need to do everything we can to look where we can to find oil and gas resources to close that gap.

And if it should be off the coast of California, then we should look there, and if we don't, we are going to be dependent in some future year on the OPEC countries or in some cases maybe even the Soviet Union, and I don't think that is a good position for us to put our country in. So, I would hope that this committee would recommend an end to the moratorium and the development of these resources with due regard for our environmental laws.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Barton and additional material follow:]

TESTIMONY OF CONGRESSMAN JOE BARTON

CHAIRMAN OF THE HOUSE REPUBLICAN ENERGY
AND ENVIRONMENT TASK FORCE

BEFORE THE

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

ON

CALIFORNIA OFFSHORE MORATORIA

SEPTEMBER 17, 1985

Mr. Chairman, Members of the Committee, I appreciate the opportunity to testify today on California offshore moratoria. I would like to express my strong concern about efforts to restrict offshore oil and gas development off the coast of California.

RESTRICTION OF OFFSHORE OIL AND GAS DEVELOPMENT

For four years now, the Congress has imposed moratoria on exploration and development in some of the most promising areas for Outer Continental Shelf (OCS) oil and gas. These moratoria were imposed through the appropriations process, with scant review by the appropriate authorization committees. As a result of moratoria, the U.S. is one of the few areas of the world where OCS oil and gas production has declined in recent years. Moratoria have locked up 5.7 billion barrels of oil and 10.4 trillion cubic feet of natural gas.

This July, Interior Secretary Don Hodel announced that he had reached a "preliminary agreement" with part of the California Congressional delegation on the disposition of OCS acreage off the California coast. This preliminary agreement would have released 2% of the 37 million acres now under moratoria for lease offering. However, the remaining 98% of the acreage would remain locked up until the year 2000. According to the Minerals Management Service, the preliminary agreement would have locked up 2 billion barrels of oil and 6 trillion cubic feet of natural gas. Other estimates run even higher.

I opposed the preliminary agreement from the very start. This acreage does not belong to the State of California, but to the United States and the American people. This kind of arrangement between select members of a coastal state Congressional delegation and the Interior Department strikes at the very heart of the Outer Continental Shelf Lands Act Amendments of 1978, which set guidelines for consultation between the Interior Department and the States. The preliminary agreement threatened to establish veto power by the coastal states over development in Federal waters off their coast.

As a Texan, I was doubly offended by the preliminary agreement. Over 90% of the offshore drilling operations conducted since the establishment of the Federal offshore program in 1954 have taken place off the Louisiana and Texas coasts. We have done our share, and will continue to make our offshore oil and gas reserves available for development. Congressman Charles Stenholm and I circulated a letter to Secretary Hodel among our colleagues from Texas and Louisiana that detailed our opposition to the preliminary agreement. This letter was signed by every member of the Texas and Louisiana House delegations and both Texas Senators. I understand that the Louisiana Senators had their own letter of opposition.

According to reports, the preliminary agreement is now dead. Secretary Hodel discovered that the oil and gas potential of the few released tracts was very low and apparently decided not to endorse the preliminary agreement. I would like to say to the Secretary's credit that the preliminary agreement has finally laid to rest the image of the Interior Department as an agency bent on economic development regardless of environmental cost. In this instance, the Interior Department cannot be accused of not working with environmentalists. The ghost of Jim Watt can be laid to rest.

ENVIRONMENTAL CONSIDERATIONS

Why did I refuse to support the preliminary agreement? The restriction of OCS development, whether through Congressional moratoria or administrative agreement, has been justified on environmental grounds. However, a thorough examination of the scientific evidence reveals that OCS development does not threaten the environment.

Following are the major environmental objections to offshore oil and gas development and the relevant facts:

OBJECTION: Offshore drilling results in significant oil spills in coastal waters. These spills destroy commercial fishing and tourism industries that rely on coastal resources. Of course, this argument is limited to oil. Federal natural gas leases pose no threat to the environment.

FACTS: Offshore platforms are not a significant source of oil spills. In 1984, a mere 670 barrels were spilled from oil platforms in U.S. waters. OCS production that year was 363 million barrels. A recent report by the National Academy of Sciences concluded that OCS platforms are responsible for only 1% to 2% of the oil discharged into the ocean. It should be noted that natural seepage accounted for more than five times this amount.

There is a close relationship between fish catches and oil development in the Gulf of Mexico. Fish catches have risen as oil development has proceeded. The principal reason for the attraction of fish to offshore platforms is the prolific production of algae on platform legs. The artificial reef platforms are excellent breeding grounds for fish. The relationship between oil development and fishing is not peculiar to the Gulf of Mexico. Fish catches in the North Sea have gradually risen since offshore development began in the 1970s.

OBJECTION: Coastal waters will be permanently damaged in the event of a major oil well blowout. The economic and environmental resources of these coastal areas will be destroyed.

FACTS: There is no evidence that an OCS well blowout will lead to any permanent environmental damage. The first offshore oil blowout in U.S. waters, the 1969 Santa Barbara spill, resulted in no permanent damage. According to studies conducted by the University of California at Santa Barbara, fish, mammal, and bird populations returned to normal within one year. It is important to point out that the tourist industry did not suffer as a result of the Santa Barbara spill and that tax receipts indicate tourist revenues rose in the immediate wake of the blowout.

In addition, the blowout of the Ixtoc I Mexican oil well in 1979 discharged 500,000 tons of oil into the Gulf of Mexico, the largest oil spill in history. As in the case of the Santa Barbara blowout, there is no evidence of permanent environmental damage. On the contrary, fish catches in the Gulf of Mexico reached record levels in 1982.

OBJECTION: Offshore platforms are a source of "visual pollution." They are offensive to look at.

FACTS: Most offshore platforms cannot be seen from the shore, and those that are visible appear as mere specks on the horizon.

The only way to reduce "visual pollution" is to reduce offshore oil and gas development. This will lower domestic oil and gas production and doom the U.S. to prolonged dependence on imported oil carried by foreign oil tankers. The increased traffic of unsafe foreign tankers in U.S. coastal waters will certainly lead to more frequent tanker accidents and more oil spills. One tanker accident can spill more oil than was spilled by all OCS platforms in a decade. Ironically, attempts to reduce "visual pollution" will certainly lead to more oil spills in U.S. coastal waters. The intangible benefits of less "visual pollution" must be weighed against the very real costs of more oil spills.

In summary, Mr. Chairman, it is my firm belief that our country needs to maximize our domestic energy production and our offshore oil and gas reserves should be thoroughly and systematically produced. Offshore development can occur with rigorous environmental safeguards. A moratoria on OCS oil and gas leasing is short-signted, self-serving for a small segment of our population, and unnecessary. I will work to defeat any moratoria legislation.

Congress of the United States
House of Representatives
Washington, D.C. 20515

July 30, 1985

The Honorable Donald P. Hodel
Secretary of the Interior
Department of the Interior
1800 "C" Street NW
Washington, D.C. 20240

Dear Mr. Secretary:

For four years now, the Congress has imposed moratoria on exploration and development in some of the most promising areas for offshore oil and gas potential. These moratoria were imposed through the appropriations process, with scant review by the appropriate authorization committees.

Up to this point, the Congress has been responsible for the failure to fully develop our offshore energy resources. Partly as a result of moratoria, the U.S. is one of the few areas of the world where offshore production has declined over the past few years. Moratoria have locked up an estimated 5.7 billion barrels of oil and 10.4 trillion cubic feet of natural gas.

Those of us who understand how badly the U.S. needs these reserves have been fighting hard to lift the OCS moratoria. As you know, we came within one vote of victory in the House Appropriations Committee last year, and there was every indication that we had the votes to end moratoria this year.

Until recently, the Department of the Interior had been an ally in this long fight. However, we were disheartened to learn of an agreement between yourself and certain members of the California Congressional delegation on the disposition of offshore acreage in the Pacific Ocean. We feel that this kind of arrangement is wholly inappropriate and insupportable. This acreage does not belong to the State of California, it belongs to the United States and the American people. An arrangement between select members of a coastal state Congressional delegation and the Department of the Interior strikes at the very heart of the Outer Continental Shelf Lands Act Amendments of 1978.

The "preliminary agreement" would release a mere 150 out of 6,460 tracts off the California coast now under moratoria for leasing. The remaining 6,310 tracts would be subject to moratoria for not one year, but fifteen years. We should note that these 150 tracts are not located in areas of prime industry interest, and that only 22 of these 150 tracts were identified by industry as having oil and gas potential. In effect, the "preliminary agreement" releases only 22 good tracts. The Department has agreed to lock up acreage that may include 2 billion barrels of oil and 6 trillion cubic feet of natural gas.

Those of us who represent the states of Texas and Louisiana must remind you that over 90% of offshore drilling operations have been conducted off our shores. We have done our share, and will continue to open our energy reserves for development. It is time for other states to look beyond petty politics and consider what is best for the nation. America needs her offshore energy reserves.

Mr. Secretary, we call on you to reconsider your position and distance yourself from this lamentable "preliminary agreement." Be assured that we will do everything we can to bring its obvious flaws to full public view.

Sincerely,

Joe Barton
Joe Barton, M.C.

Tom Loeffler
Tom Loeffler, M.C.

Solomon Ortiz, M.C.

Michael Andrews, M.C.

Ralph M. Hall
Ralph M. Hall, M.C.

John Bryant, M.C.

Charles Wilson, M.C.

Lloyd Bentsen
Lloyd Bentsen, U.S.S.

Charlie Stenholm
Charles Stenholm, M.C.

E. de la Garza
E. de la Garza, M.C.

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Joe Barton
Chairman

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TASK FORCE ON ENERGY AND THE ENVIRONMENT

AMERICA NEEDS HER OFFSHORE OIL AND GAS

July 1985

EXECUTIVE SUMMARY

The U.S. is now in its fourth year of moratoria on offshore oil and gas exploration, and in all likelihood we will soon enter a fifth year of a ban on offshore development in certain areas.

This ban affects 45 million acres off the coasts of California and New England. These offshore areas are among the most promising for oil and gas potential. According to the Minerals Management Service, the agency which administers Federal OCS acreage, there may be over 2 billion barrels of oil and over 6 trillion cubic feet of natural gas in this prohibited area.

Recently, the Department of the Interior reached agreement with some members of the California Congressional delegation regarding the moratoria in the Pacific Ocean. Under this agreement, 150 of the 6,460 tracts off the California coast now under moratoria would be released for exploration and development. The remaining 6,310 tracts would remain under moratoria until the year 2000.

The released acreage represents only 2.3% of the Pacific Ocean acreage now under moratoria. In addition, the released tracts are off the coast of northern California, while industry interest remains focused in the waters off southern California. A preliminary review indicates that industry had expressed interest in only 22 of the 150 released tracts. In effect, the agreement would release 22 good tracts. Altogether, industry has expressed interest in 983 tracts off the coast of California.

Offshore moratoria have been justified on environmental grounds. A thorough examination of available evidence demonstrates that offshore oil and gas development poses no threat to the environment. Indeed, the weight of scientific evidence indicates that offshore drilling actually results in larger fish populations. The algae which grows profusely on platform legs provides a ready source of food for fish.

The purpose of this report is to catalogue U.S. offshore oil and gas reserves, review the U.S. Outer Continental Shelf (OCS) program, and examine the environmental impact of offshore development.

HISTORY OF U.S. OFFSHORE OIL AND GAS DEVELOPMENT

The development of offshore oil and natural gas reserves began with state programs in California, Louisiana, and Texas years before the Federal program began in 1954. Offshore oil was first produced off Summerland, California in 1896. These first wells were located only a few hundred yards from shore and were drilled using conventional land rigs installed on wooden piers connected to shore.

Leasing in California, Louisiana, and Texas began in the 1920s. In 1927, the first offshore well was drilled from a marine platform in the coastal waters of Louisiana. Ten years later the first offshore well was drilled in the Gulf of Mexico.

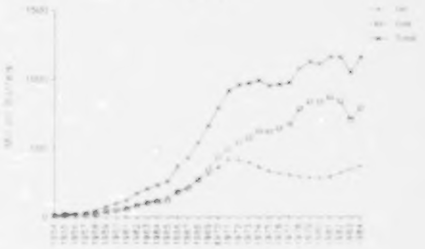
The Federal program was established by the Outer Continental Shelf Lands Act of 1953 (OCSLA), which granted the Secretary of Interior authority to lease Federal offshore lands. The first Federal offshore lease sale was held in the Central Gulf of Mexico in October 1954.

Until the late Seventies, offshore activity centered on the Gulf of Mexico and the Pacific Ocean off southern California. Since 1978, offshore activity has shifted somewhat to the Alaskan coast and deepwater regions off the coast of the Lower 48, although over 90% of current offshore oil and gas production is in the Gulf of Mexico. Offshore leasing in Artic waters began in 1979 and in the deepwater regions of the Lower 48 states two years later.

Over 33,000 wells have been drilled offshore during the course of the Federal OCS program. At the end of 1983, there were 3,074 oil and gas platforms in Federal waters. Over 99% of these platforms were in the Gulf of Mexico. Another 1,029 additional platforms were in state waters, for a total of 4,103 offshore platforms. Again, 97% of the offshore platforms in state waters were in the Gulf of Mexico.

Offshore Production

in BOE



Offshore oil and gas production plays a very important role in U.S. energy production. Since 1954, nearly 7 billion barrels of oil and over 77 trillion cubic feet of natural gas have been produced offshore. Platforms in the Gulf of Mexico accounted for over 90% of offshore production. Today, over 10% of our oil and 23% of our natural gas is produced from Federal OCS leases. Offshore platforms account for 23% of global oil production.

U.S. ENERGY NEEDS

Domestic Energy Production

Domestic oil and gas production has been declining since the early Seventies. Oil production peaked at 3.5 billion barrels in 1970, while three years later natural gas production reached a high of 22.7 trillion cubic feet. In 1983, the U.S. produced 3.1 billion barrels of oil and 16.7 trillion cubic feet of natural gas. Domestic production met 70% of U.S. needs in 1983.

These statistics do not reveal the shocking depletion of U.S. onshore oil and gas. Production from the massive Prudhoe Bay oil field has masked the sharp decline in U.S. onshore oil production. If it were not for the discovery and development of this one giant field, domestic oil production would have plunged by nearly 30% over the past decade. In the next few years, however, production at Prudhoe Bay should drop sharply and the drastic decline in overall U.S. production may resume.

The troubles plaguing the domestic energy industry in recent years have had a direct impact on domestic exploration and production. Expenditures on exploration and development have plummetted, falling one-third since 1981. In only one year of the last eighteen, 1981, have we added as many reserves as were produced in the same year.

The U.S. must redouble its efforts to locate and produce domestic oil and gas reserves. In order to continue to supply 70% of demand for oil and gas from domestic sources, U.S. production must increase from 8.8 million barrels per day to 11.2 million barrels by 1994. (This estimate is based on an annual 2% growth in U.S. energy needs.)

Offshore Oil and Gas Reserves

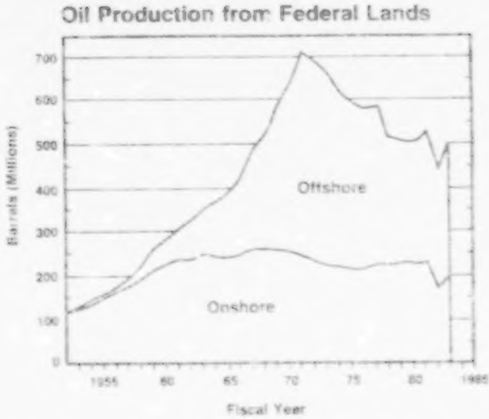
Offshore oil and gas production has risen as a share of U.S. production during this same period. Twenty years ago, offshore sources accounted for only 5% of domestic oil and 4% of natural gas production. In 1983, offshore production accounted for over 10% of oil and 23% of natural gas production. Thus, the U.S. has come to rely more and more on offshore reserves as our onshore reserves are depleted.

Most of the undiscovered oil and gas in the U.S. is expected to be located in offshore areas or onshore Alaska. In 1981, the U.S. Geological Survey (USGS) projected that up to 41% of future oil and 30% of natural gas reserves are located offshore. Recent projections have lowered estimates of offshore reserves, yet offshore oil and gas clearly constitute a very large share of potential domestic reserves.

In 1981, the Minerals Management Service (MMS) of the Department of the Interior estimated that the OCS held 27 billion barrels of oil and 162.7 trillion cubic feet of natural gas. The revised MMS 1985 estimate is 12.2 billion barrels of oil and 90.5 trillion cubic feet of natural gas.

The best prospects for discovery of giant oil fields lie offshore. It is very unlikely that the U.S. will discover any large fields onshore in the Lower 48 states. These areas have undergone extremely close scrutiny and the prospect of undiscovered giant fields in Texas or Oklahoma is very slim indeed. However, there may be some large fields offshore.

The oil and gas potential of our offshore areas will never be fully inventoried until exploratory drilling is allowed. Until that time all estimates will remain very tentative. The best chances for big finds lie offshore in deepwater regions and in the Artic waters of Alaska.



Source: U.S. Department of the Interior, 1983. A Year of Achievement: Improving the Quality of Life for All Americans.

America is destined to turn increasingly towards OCS oil and natural gas reserves if we are to arrest our growing dependence on foreign sources.

FEDERAL OUTER CONTINENTAL SHELF (OCS) PROGRAM

The Federal offshore leasing program was established by the 1953 Outer Continental Shelf Lands Act, which authorized the Secretary of the Interior to lease Federal offshore lands. The first Federal OCS lease was granted in October 1954.

The Federal government manages nearly 1.9 billion acres in offshore lands. In the thirty years since the first OCS lease was granted, 329.5 million acres were offered for lease and 37 million acres were actually leased. Over 73% of this leased acreage was located in the Gulf of Mexico.

Critics of the Federal OCS program charge that the Interior Department has leased too much acreage in too hasty a manner. In truth, the Interior Department has offered for lease only 23% of the OCS and actually leased only 3% of Federal offshore lands.

In the Eighties, the Interior Department has attempted to accelerate the OCS leasing program as a means of maximizing domestic energy production. Inspired by the success of the aggressive OCS programs in Great Britain and Canada, the Interior Department adopted the policy of "area-wide leasing."

Under this system, American energy companies may select specific tracts from a wide area offering of 20 million to 50 million acres. In this way, companies can review a broad area and determine which tracts have the best oil and gas potential. The acreage actually leased is a very small fraction of the lease offering and a lease offering of 50 million acres might result in the actual leasing of only 2 million acres. The term "area-wide leasing" lends itself to abuse, and critics of the Federal OCS program have readily misinterpreted the new policy to suggest indiscriminate leasing.

The area-wide leasing policy was adopted after the previous system of tract nominations proved inadeqate. Under the tract nomination system the Interior Department narrowed the selection of tracts to be offered for lease based on its own determination of the oil and gas potential of OCS acreage. This system, which placed the burden on the Interior Department to determine which offshore leases had oil and gas potential, was wholly inadequate for the ambitious plans of the new Interior Department.

The Outer Continental Shelf Lands Act Amendments (OCSLAA) instructed the Interior Department to prepare a Five Year Plan for the development of offshore oil and gas. The Five Year Plan (1982-1987) developed by the Interior Department in 1981 was an ambitious proposal. One billion acres of Federal offshore acreage were to be offered for lease, the number of lease sales to be held each year was increased, and development of Artic and deepwater areas was emphasized. Over 56% of the acreage to be offered was off the Alaskan coast and 20% was in the deepwater regions of the Gulf of Mexico, the Atlantic, and the Pacific.

The Five Year Plan ran into strong opposition from the very beginning. Much of the opposition stemmed from the sheer scope of the program, which would have opened up over 50% of the OCS lands for lease offerings. Only 3% of the OCS had been offered for lease in the previous thirty years. There was also opposition on the grounds that there had not been adequate review of the environmental impact of accelerated leasing.

Secretary of the Interior Don Hodel has proposed substantial changes to the Five Year plan developed by Secretary James Watt. The principal change is the new "focused approach", designed to focus lease offerings on acreage with oil and gas potential. Lease offerings under the focused approach would be much smaller than area-wide lease offerings.

Although the focused approach is more limited in scope than the 1981 Year Plan, it is a more vigorous approach than the earlier tract nomination policy. In 1982, the Interior Department identified 179 million acres of offshore lands with oil and gas potential. MMS recently identified 522 million acres with oil and gas potential.

The OCSLAA instructed the Interior Department to prepare a Five Year Plan for development of the OCS. Up to this point, Interior has not been able to develop a Five Year Plan that enjoys the full support of Congress. Instead, the Congress continues to frustrate the adoption of offshore development through the persistent imposition of leasing moratoria. These moratoria, which in effect are bans on offshore exploration, have stifled development of offshore oil and gas.

OFFSHORE LEASING IN OTHER COUNTRIES

The most successful offshore leasing programs abroad are programs that rely on area-wide leasing. Great Britain and Canada are two outstanding examples of successful offshore leasing programs.

Great Britain began its offshore leasing program in 1964, ten years after the U.S. At that time Great Britain was totally dependent on imported oil and sought to develop the oil and gas potential of its offshore areas.

After a long succession of dry holes, oil and gas were discovered in the North Sea. Great Britain moved aggressively to exploit the potential of its offshore areas and offered for lease all North Sea acreage with oil and gas potential. In a few short years, Great Britain leased 66 million acres, or 41% of its OCS. By comparison, since 1954 the U.S. has leased only 3% of its OCS.

Great Britain moved from a position of total dependence on foreign oil to be a net exporter of oil in a short twenty years. This was accomplished through an aggressive offshore program that put up for lease any acreage that had oil and gas potential.

A chief difference between the British program and the U.S. program is the speed with which Great Britain began production once offshore fields were discovered. North Sea wells were producing in less than five years. It can take up to twelve years to begin production in Federal leases.

Great Britain now possesses the energy security that the United States has longed for since 1973. In 1984, Great Britain produced 800 million barrels of oil a year from its offshore leases. U.S. production was less than half this level.

Canada has an offshore program as ambitious as Great Britain. Since 1964, Canada has leased 900 million acres, or 32% of its offshore acreage. The U.S. has only leased 37 million acres.

The Canadian government has also moved aggressively to develop the oil and gas potential of its deepwater regions. Canada offers large incentive grants to oil companies to offset the high exploration cost in Artic and east coast deepwater areas. The government will pay 80% of the exploration costs of Canadian oil companies and 25% of the costs of foreign companies. Total payments by the Canadian government under this incentive program were $1.5 billion in 1983.

The U.S. government does not have an incentive program. American oil and gas companies must find reserves in the selected areas offered by the Interior Department and shoulder all the exploration and development costs. Indeed, the shift towards development of Artic and deepwater regions only imposes new costs and new risks on American companies.

The British and Canadian OCS programs are much more aggressive than the U.S. program. They are also much more successful. Great Britain and Canada offered virtually their entire OCS for exploration and development, leasing 41% and 32% of their offshore acreage, respectively. By comparison, the U.S. leased a mere 3% of its OCS.

The differences between the British and Canadian programs and the U.S. program are clear. So is the result: the U.S. imports 29% of its oil from Great Britain and Canada.

CONGRESSIONAL MORATORIA

Moratoria are bans on leasing activities in certain offshore tracts. First imposed in fiscal year 1982, the U.S. is now in the fourth year of moratoria with no end in sight. In each of the past three years, proponents of moratoria have argued that a one year ban will have no serious impact on OCS development, and that that year would be the last year of moratoria. The following year the very same arguments are used to secure yet another year of delay in the development of our offshore reserves.

It is important to note that the moratoria has not only persisted, it has expanded. The acreage under moratoria has expanded sharply since 1982, from 736,000 acres in fiscal year 1982 to 54 million acres two years later. The U.S. has more acreage under moratoria than it has leased in the entire thirty year history of the Federal OCS program. The House Appropriations Committee recently voted to continue the moratoria on 37 million acres off the California coast until the year 2000.

The ban on offshore development has included acreage with excellent oil and gas potential. By the latest MMS estimate, the acreage currently under moratoria could include up to 5.7 billion barrels of oil and 10.4 trillion cubic feet of natural gas. The acreage under moratoria is concentrated in the coastal waters of California and New England. Since the restrictive language of the moratoria forbids harmless seismic tests it is impossible to determine whether these estimates are accurate. Only exploratory drilling can determine if this "potential" can be turned into "production."

Offshore moratoria was imposed out of concern for the impact that the new Federal OCS program would have on the environment. Opponents of OCS development contend that offshore exploration and production results in oil spills, fish kills, and damage to air quality. These critics charge that there has been insufficient study of the effects of offshore drilling on the marine environment, although conclusive evidence demonstrates that there is no permanent environmental damage from offshore drilling.

Partly as a result of offshore moratoria, the U.S. is one of the few areas of the world where offshore oil production has declined in recent years. Offshore oil production from Federal waters has declined by over 18% since 1971. While moratoria hampered exploration and development in U.S. coastal waters, many nations were able to fully develop their offshore oil and gas resources.

Excluding the U.S., the rest of the world nearly doubled its offshore oil production during the period 1971 to 1983. Spectacular increases in offshore production took place in the North Sea and the coastal waters of Mexico and Southeast Asia. In 1971, the U.S. accounted for 21% of global offshore oil production. By 1983, our share had dropped to less than 9%.

ENVIRONMENTAL CONSIDERATIONS

Opponents of OCS oil and gas development cite pressing environmental considerations as justification for continued restrictions on OCS leasing. There are three principal environmental objections to offshore oil and gas drilling.

First, offshore drilling results in significant oil spills in coastal waters. These spills destroy commercial fishing and tourism industries that rely on these coastal regions. The moratoria on leasing in the Georges Bank fishery off the New England coast is justified on these grounds. Of course, natural gas leaks pose no threat to the marine environment.

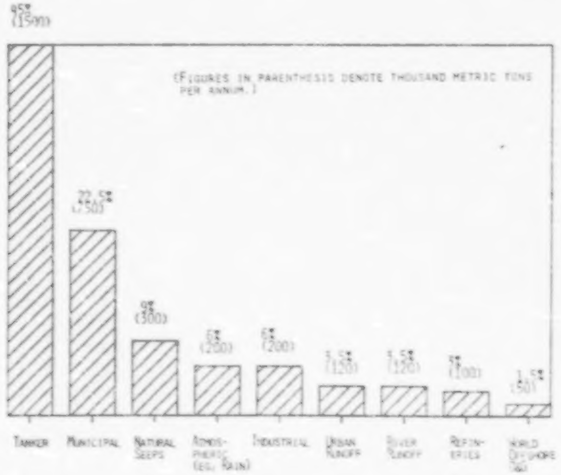
Second, coastal waters will be permanently damaged in the event of a major offshore well blowout. The economic and environmental resources of coastal areas will be despoiled.

Third, offshore platforms are an offensive form of "visual pollution" that ruin the visual beauty of the American coastline. These rigs should not be allowed to spoil the ambiance of the beach. This is the principal argument used by proponents of moratoria in southern California.

Oil Spills

One of the major justifications for the continuation of Congressional moratoria on offshore development is the need to minimize oil spills. The moratoria cannot be justified on these grounds. In 1984, only 570 barrels of oil were spilled from offshore platforms in U.S. waters. Offshore oil production that year was 368 million barrels. This record of success is nothing short of fantastic.

Voluminous evidence demonstrates that offshore platforms are not a major source of oil discharges into the sea. Annual global oil discharges into the sea average roughly 3.2 million metric tons. Offshore platforms account for only 40,000 to 70,000 metric tons, or only 1.25% to 2% of total discharges.



Oil Discharge Into the Ocean

The National Research Council (NRC) recently published a report on the sources of oil contamination into the ocean. The report, "Oil in the Sea: Inputs, Fates, and Effects", identified nine major sources of marine oil discharges. The total annual discharge of oil into the ocean was estimated to be 3.2 million metric tons. According to the report, offshore platforms were by far the smallest contributor of oil releases. In fact, natural seepage accounted for more than five times the oil released by offshore oil

AVAILABLE

platforms.

The largest sources of oil discharges were marine transportation (48%) and municipal waste and urban runoff (28%). Significantly, natural seepage was the third largest source of oil discharges, accounting for 9.6% of the total oil discharge. In contrast, offshore oil platforms accounted for only 1.7% of total annual oil discharge.

Only 1 of the 60 largest oil spills in U.S. waters was the result of an offshore well blowout, the 1969 Santa Barbara blowout. Tanker accidents accounted for the remaining 59 oil spills.

The results of this key report indicate that the debate over offshore oil and gas development has focused unduly on discharges from offshore platforms. Offshore platforms are not a major source of oil discharge into the sea and should not be presented as such. In fact, natural seepage is a much greater threat to the marine environment than offshore oil and gas platforms.

Offshore Platform Blowouts

In addition, there is no evidence that an offshore well blowout will lead to any permanent environmental damage. This is demonstrated by an examination of the environmental impact of two major oil spills, the 1969 Santa Barbara blowout and the 1979 Ixtoc I blowout.

In many respects the Federal OCS program has had a remarkable record of success. Despite the fact that over 30,000 wells have been drilled in U.S. coastal waters since 1954, there has been only one major well blowout, off Santa Barbara, California in 1969. The Santa Barbara well blowout spilled some 10,000 barrels over a ten day period.

The Ixtoc I well blowout resulted in a much larger spill, some 500,000 barrels over a nine month period. Both the Santa Barbara blowout and the Ixtoc I blowout have received intensive scientific study and are good case studies of damage from offshore well blowouts.

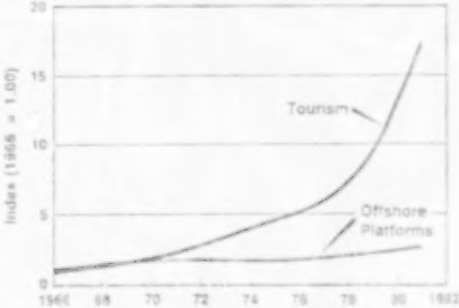
In both cases no permanent environmental damage resulted from these well blowouts. Again, it should be noted that these were large blowouts, and in the case of the Ixtoc I blowout, the largest oil spill ever.

Santa Barbara Blowout

There has been only one major well blowout in U.S. coastal waters since the Federal OCS program began in 1954, the 1969 Santa Barbara spill. The estimates of oil spillage from this blowout range from 10,000 to 71,500 barrels. The U.S. Geological Survey accepts the lower figure as the more accurate. It is interesting to note that natural seeps off Santa Barbara leak between 20,000 and 30,000 barrels of oil every year. There is an oil spill off Santa Barbara every year, a spill caused by natural seeps.

According to studies conducted by the University of California at Davis the Santa Barbara blowout caused no permanent environmental damage. A study conducted one year after the spill concluded that there was no evidence that the blowout had ever occured. Just one year after the well blowout, fish, mammal, and bird populations had returned to normal.

Index of Santa Barbara Tourism* vs. Offshore Platforms



* Based on Hotel/Motel Bed Tax Receipts

Sources: Tax data from California State [illegible] [illegible]; platform data from California State [illegible] Commission, Oil and Gas Division.

The tourism industry at Santa Barbara did not lose business as a result of the blowout. Neither did the commercial fishing industry. Fish catches in the waters of southern California rose after the Santa Barbara spill.

Ixtoc I Blowout

The blowout of the Ixtoc I oil well in 1979 resulted in the largest oil spill in history, releasing an estimated 500,000 tons of oil into the Gulf of Mexico over a nine month period. By reason of its sheer size the Ixtoc I blowout is a useful example of the impact of oil discharges on the marine environment. Also, the duration of the Ixtoc oil spill allowed for more detailed scientific study than is generally possible in tanker accidents.

The released oil formed an oil slick that covered an area of 300 square meters in the Bay of Campeche in Mexican waters. A combination of water currents and wind resulted in the general movement of the oil slick towards the west-northwest along the Mexican coast. The Ixtoc I well was finally capped in March 1980, after the release of 530,000 tons of oil. Estimates of the spill vary from 454,000 tons to 1.4 million tons.

It is important to note that despite extensive scientific analysis of the impact of the Ixtoc I blowout on the marine environment of the Gulf of Mexico, there is no evidence that this massive oil spill resulted in any permanent damage to the marine environment in the Gulf of Mexico. On the contrary, fish catches in the Gulf of Mexico reached record levels in 1982.

Fishing in the Gulf of Mexico

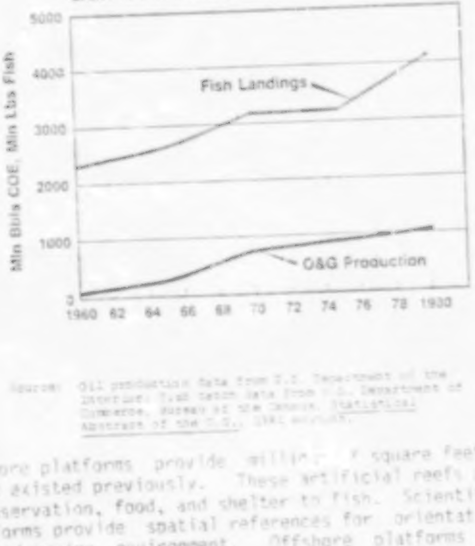
One of the most important considerations in the discussion of offshore oil and gas drilling is its impact on the marine environment, since some of the most promising areas for oil and gas are found in vital fishing grounds.

Concern for the marine resources in these areas has often been used as a justification for the imposition of moratoria on offshore development.

Over 90% of the offshore drilling operations in U.S. coastal waters have taken place in the Western and Central Gulf of Mexico. There are more than 4,000 offshore platforms in the Gulf, the greatest concentration of platforms in the world. An examination of the impact of this intense level of drilling on fishing in the Gulf of Mexico would be a useful indication of whether offshore drilling poses a threat to fishing.

There has been a clear relationship between offshore oil drilling and fishing in the Gulf of Mexico over the years. Fish catches have improved as offshore development has accelerated. Today, there are over 150 species of fish in the Gulf of Mexico that were unknown in those waters thirty years ago, before the inception of the Federal OCS program. Over the past decade, fish catches in the Gulf of Mexico have increased sharply, reaching record levels of 1982, two years after the massive Ixtoc 1 blowout.

Annual OCS O&G Production vs.
Commercial Fish Landings
Gulf of Mexico and Pacific



Source: Oil production data from U.S. Department of the Interior; fish catch data from U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the U.S., 1981 edition.

Offshore platforms provide millions of square feet of solid substrate where none existed previously. These artificial reefs provide orientation, energy conservation, food, and shelter to fish. Scientific studies indicate that platforms provide spatial references for orientation in an otherwise unstructured marine environment. Offshore platforms also deflect strong water currents, enabling fish to conserve their energy by sheltering near an offshore platform.

The chief reason for the attraction of fish to offshore oil platforms is probably the prolific production of food on platforms. Algae grows profusely on hard surfaces such as platform legs. This ready food supply makes offshore platforms excellent breeding grounds for fish. Government agencies in a number of states have purchased drilling platforms and sunk them in coastal waters for use as artifical reefs.

According to the Texas Coastal and Marine Council, offshore platforms are the most popular fishing grounds in the coastal waters of the state. More than half of all offshore fishing trips in 1977 were to the immediate vicinity of offshore platforms.

The close relationship between offshore drilling and improved fish catches has also been noted in Louisiana, which has more offshore platforms than any other state. Indeed, "fishing the oil rigs" is a common expression in Louisiana.

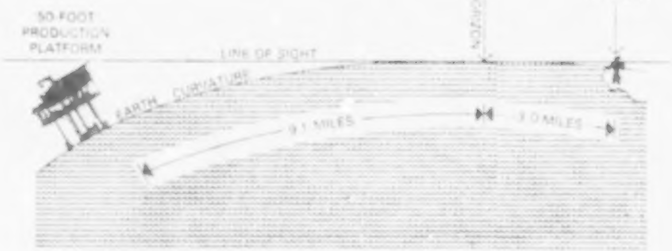
The boost that offshore drilling has given to the fishing industry in the Gulf of Mexico has led to record fish catches. In 1983, the Gulf of Mexico accounted for 2.4 billion pounds of fish, a new record, equivalent to 38% of the total U.S. fish catch. In contrast, California accounted for only 8% of the U.S. fish catch, and New England only 11%.

The Gulf of Mexico is not the only area where commercial fishing has continued to flourish in offshore drilling areas. Fish catches have been rising in the North Sea and the coastal waters of West Africa and southern California. The Royal Society of London, after exhaustive research, found that offshore drilling has no significant impact on the marine environment or fishing industry. In fact, North Sea fish catches have quadrupled since offshore drilling began.

"Visual Pollution"

One of the central arguments of the proponents of offshore moratoria is "visual pollution", namely that offshore platforms are offensive to the eyes and should not be tolerated. By the logic of this argument, the importation of foreign oil is preferable to the violation of the aesthetic beauty of our coastline. Ambiance is more important than the balance of payments with the OPEC nations. Most offshore platforms cannot even be seen from the shore.

HOW FAR CAN YOU SEE FROM THE SHORELINE?



It is interesting to note that efforts to minimize "visual pollution", such as offshore moratoria, doom the U.S. to continued reliance on imported oil carried on foreign carriers. Considering the meager safety standards of many foreign carriers it seems certain that offshore moratoria will result in more oil spills in U.S. coastal waters. Clearly the intangible benefits of reduced "visual pollution" must be weighed against the very real costs of more frequent tanker accidents in our waters.

In some eyes, "visual pollution" is a valid argument against offshore development. However, no one should be unaware of the very real costs imposed in the name of aesthetics. These costs are the prospect of more frequent tanker accidents in U.S. waters and a weaker balance of payments abroad.

Two of the four principal arguments to justify moratoria on offshore production are insupportable. Since oil discharges from offshore platforms are insignificant, a ban on OCS development does not promise any material reduction in total oil discharges.

In addition, the prospect of future well blowouts does not justify offshore moratoria. Exhaustive scientific research concluded that there was no permanent environmental damage from either the Santa Barbara blowout or the massive Ixtoc I oil spill.

The only environmental argument against offshore drilling that may have some merit is "visual pollution." Offshore platforms are not the prettiest sight in the world. But they produce oil and gas, and even more important, U.S. oil and gas. The question at hand is whether the nation places such a high price on reducing "visual pollution" that it is prepared to accept more frequent tanker accidents in U.S. waters and allow our balance of payments to further deteriorate.

The **Chairman**. Thank you very much.

Senator Johnston.

Senator **Johnston**. Thank you, Mr. Chairman. I am very pleased to have the distinguished members of the California delegation here, a very able bunch, very diverse. I didn't realize you had a Louisiana Cajun as a member of your delegation. I would have warned you not to give him a vote. We did that in Louisiana, and we have been lamenting that ever since.

Seriously, we have talked about agreement here this morning, about hoped for agreements, about preliminary agreements.

And by the way, Mr. Panetta, I think I have what purports to be an agreement here. It was styled, "A Preliminary Agreement," and it did say that it is felt that a final agreement cannot be concluded until there is further consultation with State and local officials as well as other interested parties.

I am correct on that, aren't I?

Mr. **Panetta**. There is no question, but I also want to make very clear that the discussion with the Secretary focused on several tracts in the southern part of the State, and also focused on the trigger language. It did not say that everything in the agreement was up for grabs.

Senator **Johnston**. It was preliminary, though, and it was not final.

Mr. **Panetta**. That is true.

Senator **Johnston**. At least from a technical standpoint, there is no agreement until it is a final agreement. But what I would like to talk about is something that was a final agreement that involved not just the Secretary and not just one delegation, but involved the whole Congress and set national policy, and that is the agreement in last year's continuing resolution.

At that time we met, Senator McClure and I and Sid Yates met to try to work out this problem of the continuing moratoria, and I can almost quote to you the way the little play revealed itself. First, Sid came in, and he ought to be a Shakespearean actor. Is he?

The **Chairman**. Yes, he is.

Senator **Johnston**. He said, oh, we can't have this drilling off the California coast, and we said, yes, you can, we have done it and we like it. We have fish back there by the rigs.

And we went through that little play, and after a while we got down to the real facts, and he said, look, I have got my guys. It is election year. They are running. He said, Don Hodel is not going to lease this this year anyway. He said, we have got to have it this year. Go with us another year.

We said, well, on one condition, that from now on we not have any further political moratoria, and from now on we base these moratoriums on real, provable environmental objections, not any of this site pollution, not any of these aesthetic considerations about, oh, I can see a rig out there, it is destroying the horizon. Instead, the moratoria must be based on real environmental objections.

And indeed, we incorporated that language into the conference report. Now, since that time, we have had hearings here. We have had the California delegation up, and we have said, what are your environmental objections, chapter and verse? We have had this hearing this morning. What are the environmental objections, chapter and verse, to drilling off the California coast? Can you tell me?

Mr. PANETTA. Sure. We have been engaging in that for the last 4 years. It is pretty clear. Senator, let me make it clear to you that we consider some areas of our coastline national treasures, for example, the Big Sur coastline.

We think that is as important a national treasure as the Yosemite or Yellowstone National Park. And it is our view that that kind of national treasure ought not to be impacted at all. It is as important as a wilderness area in Idaho. It is as important as a national park.

Senator JOHNSTON. By the way, it is beautiful. I was out there this year.

Mr. PANETTA. You bet your life it is beautiful out there. That is why we want to protect it. You take that coastline and the Mendocino coastline, and those are some of the key area. The Bodega coastline is pretty much protected now in some areas, and those are some of the key areas that we wanted to protect along with the inner part of Santa Monica Bay.

Senator JOHNSTON. Protect from what?

Mr. PANETTA. All right, the protection is from several points of view. One is obviously the air pollution problems. Clearly, the communities are concerned about that, particularly in southern California, and that has not been resolved. That has not been resolved. They cannot meet national standards at the present time, and that is clear.

Interior is trying to work toward that. That is still a problem.

Senator JOHNSTON. At Big Sur?

Mr. PANETTA. Clearly that is a problem there as well as in southern California. Let me tell you very clearly for Big Sur it is viewshed, and thirdly, it is also the potential of spills. The Interior Department says that proceeding with offshore drilling you can anticipate three major spills on the California OCS. You know what the impact of spills is.

Senator JOHNSTON. Who said that?

Mr. PANETTA. The Interior Department.

Senator JOHNSTON. We have got over 20,000 holes out in the Gulf of Mexico off Louisiana, the richest estuary in the world, which we think, by the way, is a national treasure, too. It produces more seafood than any other area of the country. We have got over 20,000 holes and have never had a major spill. In fact, we have never had a spill. Where the real——

Mr. PANETTA. We can't say that in California.

Senator JOHNSTON. Excuse me?

Mr. PANETTA. We can't say that in California.

Senator JOHNSTON. One spill.

Mr. PANETTA. Pretty major spill.

Senator JOHNSTON. Well, there was no permanent damage, and the technology has——

Mr. PANETTA. That is not what the people in Santa Barbara say.

Senator JOHNSTON. Well, is there any continuing environmental damage?

Mr. PANETTA. You bet there is.

Senator JOHNSTON. What does it consist of?

Mr. PANETTA. The impact on both the wildlife and the tourist industry and what happened on the beaches there is something that the community itself says is a continuing problem.

Senator JOHNSTON. But how?

Mr. PANETTA. Let me also point out we had a tanker go under in the northern part of the State, a Puerto Rican tanker. They did not control that spill. The spill hit the coastline at Point Reyes. Now, if the technology is there to control spills in the Pacific Ocean, then we sure haven't seen any example of it.

Senator JOHNSTON. Well, no, to prevent the blowouts. The Santa Barbara blowout, first of all, the technology wasn't up to what it is now.

Second, the negligence was a whole series of acts which have since been—steps have been taken to prevent those kinds of things from happening. But really I think you make the point when you talk about a spill from a tanker, because producing your own oil on shore makes it unnecessary to import so much oil, which is the biggest source of oil pollution.

Mr. PANETTA. The issue here is whether you can control an oilspill, Senator. That is the key. Whether it comes from a well or whether it comes from a tanker, you have got to control the spill if it is not going to impact on the coastline. That did not happen with the Puerto Rican.

Senator JOHNSTON. Let me ask you this. In this preliminary agreement, it talks about one COST well authorized in three areas, Puenta Arena, Bodega, and Santa Cruz, on condition that it not be closer than 18 miles from the shoreline.

Can you tell me what the reason for 18 miles was?

Mr. PANETTA. Several reasons. One, it was our understanding that a test well doesn't have to be right in the middle of a basin. It can be on the outskirts of a basin, and that test well can then analyze the shape of that basin, and you can derive a great deal of information from that.

That was our understanding both from officials at Interior as well as the discussion we had at the time with the Secretary.

The reason for having it 18 miles off was again viewshed problems, because of great concern among the delegation that they did not want any test wells. I argued, if they can get the information 18 miles off, and that is satisfactory, let's put in an 18-mile buffer, and that provided support then from the members of the delegation.

Senator JOHNSTON. At 18 miles you figure is where you can see the top of the rig from the shore?

Mr. PANETTA. That is about right.

Senator JOHNSTON. Really, to be fair, aren't we really talking about a viewshed here on, to be sure, the pristine, wonderful coast? I mean, I don't—please don't get me wrong. I think the California coast is a jewel, but really, isn't that the gut issue here, viewshed?

Mr. PANETTA. It is all of those issues. You go to southern California. Air pollution is the No. 1 problem, because viewshed—viewshed is not their No. 1 problem, or they don't list it as that. It is air pollution. It is controlling spills. It is impact on the local communities in terms of industrialization.

They don't want refineries. They don't want to have the industrial park that you have to have if you are going to support an offshore oil industry. And third, yes, they are concerned about——

Senator JOHNSTON. You don't have refineries in Alaska.

Mr. PANETTA. I can tell you that communities along the Mendocino coast in central California don't want onshore development. That is pretty clear from those communities, Senator.

Senator JOHNSTON. Let me ask you another question here. You talked about this process here initiated by the Secretary where you went and had hearings, and as you described it, you didn't arrive at it lightly. It was an intensive process. There is nothing wrong with the process. The thing that was wrong was the failure to sign the agreement. Isn't that correct?

Mr. PANETTA. No, you can criticize the agreement, but make no mistake, the process led to an agreement. We were in the room. It was dictated to the Secretary of—his personal secretary, the Secretary's own secretary. He asked her to come in. He said, let's dictate this agreement at this point, understanding that it is preliminary. And we went through it with him.

Please, let's not make any mistake about the fact that the bottom line was an agreement.

Senator JOHNSTON. What I am talking about was, there was enough discussion and there were enough hearings and there were enough people involved. It wasn't the process of arriving, the procedure of arriving at the agreement that you have objection to. It was the failure to finalize what you regard as a real agreement.

Mr. PANETTA. That is right.

The CHAIRMAN. Senator Nickles.

Senator NICKLES. Mr. Chairman, I hope that we get to the Secretary quickly. I might ask just one question. Congressman Dannemeyer is here, and Congressman Lungren. Were you all involved in the negotiations from the so-called California delegation?

Mr. LUNGREN. I am glad you asked that. I am sorry Senator Johnston left. I can tell you I was not informed nor invited to those proceedings. A staff member specifically asked that I be invited and informed. I was not.

I got a phone call the night before the press conference announcing the agreement, and one of the first excuses I got from a member who was involved in the process was that none of the tracts affected my area.

Out of 150 tracts, 32 are either in my district or surrounding my district. So I don't know what I needed to do to have it affecting my district. I suspect I have been against moratoria, and I suspect that I wasn't thought to be one they wanted to invite.

All I can tell you is that not all members were. The senior Republican on the relevant Subcommittee on Merchant Marine and Fisheries, Mr. Shumway, from Stockton, was never invited, nor informed. Most of our delegation was never informed. The dean of our Republican delegation was not informed.

So it is interesting to have an agreement and be so upset about the Secretary not going through with an agreement that affects other Members' districts who were never even invited to participate or informed about what was going on until the very end.

So, this agreement was flawed, in my judgment, in terms of the process as well as in terms of the substance.

The other thing I would say is this. I have one district, one community in my district, Huntington Beach in Orange County, which has always supported offshore drilling, has gone against the county of Orange when they have come out against it either close to shore or Federal drilling. They came out against it this time.

And the reason is, they say if you lock up everything else in the State, what you are saying is, those places who have already had the privilege of having those offshore rigs to look at as we body surf and do everything else there are going to continue to have that, and whenever there is going to be any wells drilled anywhere, by God, they are going to make sure they are in Huntington Beach or they are in Long Beach or they are in some place we have already allowed it, because that has already happened.

And they said, that is not fair. We are willing to share the burden. We happen to think it is pretty important coastline as well. Just 2 weekends ago we had the national pro surfing championship in Huntington Beach, and you can see from where they are surfing for the national championship the wells that are out there, both in State waters and outside of State waters.

And so that is one of the problems we have run into. Areas which have supported offshore drilling are now coming to me and saying no more, no more, because there is not a sharing of the burden, there is not a sharing of the responsibility.

Now, I think I would agree with Leon. There are certain areas which we could probably get agreement on, a few areas in which we would want to protect those because we could probably get consensus that we wouldn't want even the problem of view there.

But what I am saying is that this locks up too many areas, and puts them on that particular tract, and says to the rest of us, you have had the pleasure of having drilling in your area, we are going to continue to have it, even though your tracts are really not that attractive.

The last thing I just want to say to you again is, the Defense Department has got to be part of this. I've got a map here that shows you all the nines and eights in southern California are put off limits by the Defense Department. Now, I think there's got to be some accommodation there.

If they are so concerned that they cannot maneuver their ships around a few oil rigs, God help us if the Soviets put up any oil rigs. [General laughter.]

Mr. DANNEMEYER. I would like to respond to that comment. I am the ranking Republican member of the Fossil and Synthetic Fuels Subcommittee in the House. My staff member found out about the negotiations taking place between the Secretary and other members of the California delegation, and I kind of invited myself to one of the meetings.

There were about half a dozen Members of the California delegation present, all representing coastal districts. No one there before I came in that was in favor of offshore drilling. And I was kind of treated like an unwelcome guest in church, such as I had wandered in with dirty clothes in the midst of a fine service, and they tolerated me, and they let me say a few words, not very many.

AVAILABLE

The point is that this tentative agreement was negotiated by the Secretary in good faith, but on the side of the California congressional delegation he only had Members from coastal districts, none of whom supported offshore drilling, half a dozen in number at the most, and they sat there essentially looking like this.

We will negotiate an agreement providing for drilling in somebody else's district, but by golly, don't you dare put it in mine, because my political survival is at risk if there is any drilling off of my beach.

The tail has been wagging the dog for 4 years, and I think it is about time we call it. This fight should be fought on the floor of the House of Representatives, where national policy is set. It should not be carried through the assistance of the distinguished Mr. Yates, who comes to the conference committee carrying the burden, as he says, of protecting the political life of a handful of Members of the California congressional delegation.

This basic agreement was flawed from the beginning, and I submit that it should be rejected, and you know, when you look at this whole process of what we are doing, it is backwards. We should be offering these tracts to industry so that the market system can determine what tracts they have an interest in, and at that point we can then determine whether or not it is in the public interest to lease those tracts.

But for us and Members of the California delegation representing coastal districts who agree on where drilling will take place, it is kind of like asking some of us to agree on the method of our execution. We just can't agree on that. It is a national policy, and I think the whole House should decide it.

The CHAIRMAN. Senator Bumpers.

Senator BUMPERS. Mr. Chairman, I can't add much to what has already been said. I was just reading the House Republican Research Committee statement and there is one thing I found interesting. It says that the tourism industry of Santa Barbara didn't lose business as a result of the blowout, and that fish catches in the waters of southern California rose after the Santa Barbara spill.

I just wonder if we can conclude from that that we ought to be pouring oil on all of our fishing grounds.

Mr. BARTON. Senator, if I could respond to that, that is my report, or I am the task force for that. That report also points out that there is natural seepage of 20,000 to 30,000 barrels of oil per year in the Santa Barbara Channel, and that is two to three times what is generally recognized to be the extent of the blowout in the Santa Barbara spill, which was 10,000 barrels.

And in Texas, where also the report talks about the Mexican oil spill, within a year fish catches had returned to normal, so there really has not been a study that showed there to be any permanent damage from an oil spill, and the Santa Barbara spill is the only spill in the coastal waters in the United States that we have had. The other 59 major spills have been because of tanker accidents.

Mr. LUNGREN. Senator, can I respond to that? Frankly, one of the problems we get into is, somebody might report that I am in favor of offshore oil spills. We don't live in a risk-free world. There is going to be some oil seepage. There is going to be some oil spills. We have got to recognize that.

But in California one of the concerns I had is the worst environmental damage, the more permanent environmental damage is done by tankers that have accidents, and if we rely more on foreign oil coming in from outside our State, we increase tanker traffic.

And frankly, I think we have got to realize—everybody I saw testify and heard testify talked about the terrible tragedies we have had with tanker traffic, and it is true, and some of the worst things, we have some hulks still lying out there from accidents that we have had in the past, but in fact it is far more of a severe environmental problem to have increased tanker traffic than it is to have some offshore drilling.

And as I said before, those of us who live on the beach, who love the beach, who enjoy the beach, who have been there all our lives, we recognize that we have got some problems and some potential problems from offshore drilling, but there are also potential problems from increased tanker traffic.

And I am not sure that that has been brought forward to the American people sufficiently enough for us to understand it, and I think it is important for us as public officials to recognize it and broadcast it.

Senator BUMPERS. The Secretary is here, and I guess he will appropriately defend his position.

The CHAIRMAN. We hope to get to him.

Senator BUMPERS. He has been a very patient witness waiting here this morning.

Let me just ask you, Congressman Lungren, you said you didn't participate in this discussion. Did I hear you correctly?

Mr. LUNGREN. I was not invited, and in fact upon request of my staff to be informed, we were not informed.

Senator BUMPERS. Did you voice your objections to the Secretary either before or after to the agreement was reached?

Mr. LUNGREN. I think the Secretary will tell you, I said it in the strongest possible terms in a phone call I made immediately to him, yes.

Senator BUMPERS. After the agreement was entered into?

Mr. LUNGREN. After the preliminary tentative agreement was announced. You see, they keep talking about they will adjust some tracts in Oceanside and Newport, and then they always kind of put in Long Beach. I represent Long Beach. I represent the Huntington Beach area. It is always on the maps, Huntington Beach/Newport.

Then they talk about might be protecting some or changing some in Santa Monica Bay. I represent the southern part of Santa Monica Bay.

Senator BUMPERS. I am not really interested in the legality of the preliminary, tentative, almost agreement language.

Mr. LUNGREN. That is what it was.

Senator BUMPERS. I am just glad Mary McCrory is not here to hear that word, "viewshed," used this morning. She would climb right up the wall with that.

But let me ask you both you and Leon this question. When I first saw that this agreement had been entered into, I really heaved a sigh of relief, because this committee gets lobbied intensely every year, on this California OCS leasing moratorium.

I was very pleased that something appeared to have been worked out. And I must say I also have great respect for the Secretary. He is such a welcome relief to what we have had in the past, and I thought that surely common sense had prevailed and an agreement had been worked out.

As I say, the Secretary is here to defend himself, but let me first ask you, Leon, and then you, Congressman Lungren, why did the Secretary change his mind?

Mr. PANETTA. Senator, I don't think there is any question on why he changed his mind.

Senator BUMPERS. I may be phrasing the question wrong.

Mr. PANETTA. You are going to hear a lot of reasons, that the tracts are not the right tracts, the wrong 150, that the time is too long, that we didn't look closely enough at it, that we got 30 days of new information.

I think the bottom line is, he got a tremendous amount of pressure from the oil companies, and that they came down very strongly in opposition to this, and as a consequence he just couldn't stand with the agreement.

That is unfortunate. I would hope that the Secretary was dealing with the oil companies before we arrived at the agreement, very frankly. That was our hope, that those bases were covered. Unfortunately, that was not the case.

Senator BUMPERS. Let me change the question, Congressman Lungren. The statement made here, by Congressman Panetta was that 70 percent of the resource potential as estimated by the Mineral Resources Division of Interior was contained in the leases that they agreed to lease.

Is that correct? And if it is correct, why is the other 30 percent of the potential of such immediate urgency?

Mr. LUNGREN. Mr. Chairman—or Senator, it is my understading that only 5 to 7 percent of the potential resource recovery is within these 150 tracts. I don't know why we didn't have that information before. I wasn't party to the agreement. All I know is, that is the best information.

And frankly, I don't care whether they have the right information or wrong information. I am going on what the best information is now, and it seems to me that is what we ought to do, and what I have suggested in terms of us trying to reach some agreement is to establish what the percentage of the potential recovery is that we all can agree on that California ought to contribute to the United States effort.

Once we have that as a target figure, we can then work back from the tracts, but I would suggest they went backward. They picked the tracts. It is almost like tic-tac-toe. If you got an X, you were lucky. If you got an O, you were unlucky.

And then once they got the 150 tracts from a political standpoint they added up what the potential recovery was, and all I know is, right now based on the information that I have heard from the Secretary, from the oil industry, from everywhere else, it is between 5 and 7 percent. I think that is unacceptable.

I think what we should do is say, what is the best information we have, what percentage do we think is reasonable for the next 15 years to ask Californians to contribute to the Nation, and then go out and pick our tracts and use some sensitivity with respect to the environment as to those tracts.

It seems to me that meets——

Senator **Bumpers**. A GAO report indicated that Interior, by offering too many OCS leases had cost the Treasury up to $7 billion in revenues because there was not enough competitive interest?

Have you read that report, and if so, are you persuaded by it?

Mr. **Lungren**. I have seen some excerpts from that report at times. If you put too much out there, obviously you decrease the competition out there, and I am concerned about recovery to the Treasury. I am frankly more concerned about trying to get us to do something against energy dependence.

I have got a 12-year-old son, a body surfer. I don't want in 10 years to have him part of the rapid deployment force responding to a crisis in the Persian Gulf because we sat here and were concerned about a view off my home or off my office.

Senator **Bumpers**. Well, let me ask you this question. That same House Research Committee reported that in only one of the last 18 years—and that includes the year we discovered Prudhoe Bay—have we added reserves equal to production.

Now, I will tell you that in my humble opinion in the year 2000 we will be saying that not 1 year in the past 15 have we added reserves equal to production. I can remember when we debated the windfall profits tax here, which didn't endear a lot of us to the oil industry. I remember all those arguments about how much production was going to climb if we just decontrolled prices.

I am not sure my vote on that was right, but I will say one thing. I never believed that agreement then, and I don't believe it now. I think it has increased production some, but the basic problem of our having no energy policy in this country remains.

And while I think we ought to find all the fossil fuels that we can, the fact that in the last 18 years, even long before the oil embargo, we were not adding to reserves as much as we were producing every year indicates that we really do need a much more significant energy policy than we have right now. Would you agree with that?

Mr. **Lungren**. I agree with that.

Senator **Bumpers**. And it shouldn't all be focused just on Outer Continental Shelf drilling. The Beauford Sea is a very keen, deep disappointment to all of us. Georges Bank and the Baltimore Canyon are all deep disappointments. That whole California area we are discussing this morning may turn out to be a dry hole. We don't have any way of knowing that.

Every bit of that coastline is going to be drilled at some point, because the pressures will be inexorable to do it. The question is, should we do it right now, should we offer it all up right now, or should we take a more measured view of it?

I am not sure how I am going to vote on this, Mr. Chairman, if we have to vote. I hope we don't have to.

Mr. **Panetta**. Senator, could I just comment on that?

Senator **Bumpers**. The chairman is getting ready to cut me off, but as far as I am concerned, you can go right ahead.

Mr. **Panetta**. Thank you, Mr. Chairman. I will just make it brief. I agree with, and I hope that the committee looks at a balanced energy program, because you are not going to solve the problems of energy development in this country solely by going at the California OCS.

Yes, we have a role to play, but at a time when the administration is cutting back on filling SPRO, at the very time we ought to be continuing to fill SPRO and the price is at its lowest, that is not the national energy interest of the people of this country.

In addition to that, we are cutting back on all the tax credits for every alternative fuel area. That is not in the interest of energy development.

And last, we are getting rid of the fuel standards, and that is something that is in the interest of conservation and energy development. If we are going to do energy development in this country, it had better be a balanced approach.

The **CHAIRMAN**. Senator Hecht.

Senator **HECHT**. On a time restraint, I am waiting to hear from the Secretary, so I will forgo any comment.

The **CHAIRMAN**. Thank you.

I want to thank all members of the House who have appeared and their two colleagues from the Senate who have appeared to testify.

In view of the importance of the issue, and I know the importance which the individual Members attach to this issue, I have not attempted to and did not intend to attempt to restrain the amount of time spent. I think it has been a very valuable 2 hours that we have spent listening to the views of members who are directly and indirectly affected by the proposal.

Let me add just this much to what Senator Bumpers has said. I suspect that there may have been some slight overstatement, at least in my view, about whether or not every inch of that coastline is going to be drilled at some time.

I suspect that given the environment of Santa Monica Bay, for example, I doubt very much that we will see drill rigs set up in Santa Monica Bay, but I do believe in essence his statement was correct that at some time we are going to determine what that resource is. If that is the case, then what we ought to be talking about now is the pace of that development.

I think that is really behind this agreement. Behind the policy statement that we have to try to find is what is the appropriate pace and how do you shape that? I will be very frank to say that when I first heard of this tentative agreement, and I first heard of it just a few minutes before the press conference, I did not think it was adequate.

Subsequent events have proven that to be the case, and rather than fault the Secretary for admitting that subsequent information indicates a different judgment, I don't condemn him for that, I commend him for that, because it seems to me that the parameters of the discussion may have been too narrow, and latter discussion proved that to be true, but we will wait and hear from the Secretary in that regard, and perhaps even have a question or two to ask him.

Thank you very much.

Mr. **Barton**. Mr. Chairman, could I have the Task Force Report on Energy and the Environment submitted for the record? I forgot to ask permission to do that.

The **Chairman**. Yes, that will be included in the record.[1]

We will next hear from the Honorable Donald Hodel, Secretary of the Department of the Interior.

Let me make a generalized statement about what we hope to do. We knew that this would be a long hearing today. We knew that there were an awful lot of views to be heard. We do have permission to sit. It is the intention of the chairman to allow witnesses to appear and testify and be examined, to be asked questions by members of the committee.

When we have completed the testimony and the questioning of the Secretary, we will proceed to the panels. We have four panels to hear from. I will ask each of the panelists to be very brief in their oral remarks. Their written remarks will, of course, appear in the record in full, but I will ask them to summarize very briefly so that we can get to the questions, so that we can then develop the record based upon the statement, the written statements which they have submitted as they have been requested to do, and the questions that members of the committee may ask that will make the record upon which we can make some judgments.

Senator **Murkowski**. Mr. Chairman?

The **Chairman**. Senator Murkowski.

Senator **Murkowski**. With your permission, I have a rather lengthy statement which I would like to enter into the record.

The **Chairman**. It will be placed in the record at this points.

[The prepared statement of Senator Murkowski follows:]

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[1] The report appears following Mr. Barton's prepared statement.

Frank H. Murkowski

STATEMENT OF SENATOR FRANK H. MURKOWSKI
ON
OCS LEASING MORATORIA
BEFORE THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
SEPTEMBER 17, 1985

MR. CHAIRMAN, YOU ARE TO BE COMMENDED FOR CONVENING THIS OVERSIGHT HEARING. PERHAPS NO SUBJECT THAT THIS COMMITTEE DEALS WITH IS AS IMPORTANT, AND CONTROVERSIAL, TODAY AS THE MANAGEMENT OF THIS NATION'S OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM. CERTAINLY, NOTHING IS AS FRUSTRATING AS THE REPEATED ATTEMPTS BY THOSE OPPOSED TO OCS LEASING TO HAMPER SOUND MANAGEMENT OF THAT LEASING PROGRAM BY BUDGET MORATORIA.

THE FOCUS OF THIS HEARING IS THE RECENT ATTEMPT BY SECRETARY HODEL TO REACH AN AGREEMENT WITH MEMBERS OF THE CALIFORNIA DELEGATION WHICH WOULD AVERT THE CONTINUATION OF AN OUTRIGHT BAN ON ALL DEVELOPMENT OF THE CALIFORNIA OUTER CONTINENTAL SHELF. THE INQUIRY OF THIS COMMITTEE SHOULD NOT BE LIMITED TO THE FOCAL POINT OF THE HEARING HOWEVER. THE IMPACTS OF THE CALIFORNIA AGREEMENT AND OF OCS LEASING MORATORIA IN GENERAL ARE BROAD AND FAR REACHING.

WHEN THE PRELIMINARY AGREEMENT BETWEEN SECRETARY HODEL AND THE CALIFORNIA DELEGATION WAS ANNOUNCED, I ANALYZED THE IMPLICATIONS OF THAT AGREEMENT FOR ALASKA AND CONCLUDED THAT IT PRESENTED A CLASSIC CATCH-22 SITUATION. ON ONE HAND, IT COULD BE ANTICIPATED THAT THERE WOULD BE SUBSTANTIAL PRESSURE FOR ADDITIONAL OCS LEASING IN ALASKAN WATERS OVER AND ABOVE THAT ALREADY SCHEDULED. ON THE OTHER HAND, PEOPLE OPPOSED TO ANY OCS OIL AND GAS LEASING OFF ALASKA--AND THERE ARE MANY--WOULD HAVE THE READY MADE ARGUMENT THAT WHAT IS GOOD FOR CALIFORNIA IS GOOD FOR ALASKA. THERE IS ENOUGH CONTROVERSY OVER OCS LEASING IN ALASKA NOW UNDER A PROGRAM WHICH CONGRESS HAS ESTABLISHED AS A NATIONAL POLICY. WE SHOULD NOT ADD FUEL TO THE FIRE BY ABANDONING OUR NATIONAL PRIORITIES OF ACHIEVING ENERGY INDEPENDENCE.

OCS LEASE SALE #92 IN THE NORTH ALEUTIAN BASIN OF ALASKA IS THE MOST RECENT SALE TO SURVIVE A BUDGET MORATORIUM THREAT. I

WAS OPPOSED TO THIS SALE WHEN IT WAS FIRST ANNOUNCED IN 1977 BECAUSE THERE WERE SIGNIFICANT QUESTIONS CONCERNING THE ENVIRONMENTAL IMPACT OF THE EXPLORATION PROCESS WHICH WERE NOT ANSWERED. IN THE INTERVENING EIGHT YEARS OVER $25 MILLION HAS BEEN SPENT ON ADDITIONAL ENVIRONMENTAL STUDIES AND THE LEASE SALE AREA HAS BEEN REDUCED BY 83%. I BELIEVE THAT THE REASONABLE ENVIRONMENTAL CONCERNS HAVE BEEN ADEQUATELY ADDRESSED BY THE ADDITIONAL STUDIES AND THE REDUCTION IN ACREAGE. A THOUGHTFUL ANALYSIS OF ALL THE FACTS INDICATES THAT THIS SALE SHOULD NOW PROCEED. NEVERTHELESS, DESPITE THE FACT THAT OVER $100 MILLION HAS BEEN SPENT BY PRIVATE AND PUBLIC SOURCES ON BIOLOGICAL, ENVIRONMENTAL, AND SOCIAL STUDIES OF THE SALE AREA OVER THE PAST TEN YEARS, A CONCERTED ATTEMPT WAS MADE EARLIER THIS YEAR TO FURTHER DELAY THIS SALE THROUGH A BUDGET MORATORIUM. THAT ATTEMPT WAS THWARTED AND I COMMEND SECRETARY HODEL FOR HIS DECISION TO HOLD THIS SALE IN JANUARY, 1986.

I MUST STATE THAT I AM UNEQUIVOCALLY OPPOSED TO MORATORIA ON OCS LEASING THROUGH THE BUDGET PROCESS. CONGRESS HAS DETERMINED THAT A STEADY AND PROGRESSIVE PROGRAM OF OCS LEASING IS VITAL TO OUR ENERGY NEEDS AND NATIONAL SECURITY. AMPLE OPPORTUNITY IS PROVIDED FOR INCORPORATING STATE AND LOCAL CONCERNS INTO THAT PROGRAM. BALANCING THOSE CONCERNS WITH THE INTERESTS OF THE ENTIRE NATION SHOULD BE DONE--AND FROM MY OBSERVATIONS HAS BEEN--BY THE ADMINISTRATIVE AGENCY CHARGED WITH THAT RESPONSIBILITY BY CONGRESS. UNILATERAL IMPOSITION OF LOCAL DEMANDS REGARDLESS OF NATIONAL PRIORITIES THROUGH A PROCESS LACKING ANY POLICY ANALYSIS VIOLATES THE INTENT OF CONGRESS AND THE WILL OF THE MAJORITY OF THE PEOPLE IN THIS NATION.

IF WE ARE TO FULFILL OUR PREVIOUSLY ESTABLISHED NATIONAL POLICY OF ASCERTAINING THE EXTENT AND NATURE OF OUR OUTER CONTINENTAL SHELF RESOURCES, THE PRACTICE OF HALTING OCS EXPLORATION THROUGH BUDGET MORATORIA MUST STOP. IN THIS REGARD I AM EXPLORING CHANGES TO THE PRESENT SYSTEM WHICH WOULD PROVIDE THE AFFECTED COASTAL STATES WITH MORE INPUT AND CONTROL OVER THE ACTUAL PRODUCTION STAGE OF OCS OIL AND GAS DEVELOPMENT AND A GREATER SHARE OF OCS REVENUES, IN EXCHANGE FOR LESS INVOLVEMENT IN THE EXPLORATION STAGE. I FULLY RECOGNIZE THE DIFFICULTIES OF CHANGING THE SYSTEM IN SUCH A MANNER. HOWEVER, THE CURRENT STATE OF AFFAIRS PERMITS NO EXPLORATION AT ALL IN THOSE AREAS SUBJECT TO BUDGET MORATORIA. WHERE THERE IS NOTHING TO LOSE, SEARCHING FOR A POSSIBLE SOLUTION, AS DIFFICULT AS IT MAY BE, IS ENTIRELY REASONABLE.

I SINCERELY HOPE THAT THIS HEARING WILL GENERATE A THOUGHTFUL DISCUSSION ON THE ISSUE OF OCS LEASING MORATORIA WHICH WILL LEAD TO A WORKABLE SOLUTION. I AM PLEASED TO TAKE PART IN THIS DISCUSSION AND INTEND TO DO ALL THAT I CAN TO HELP ENSURE A SOUND ENERGY FUTURE FOR THE UNITED STATES.

Senator MURKOWSKI. Since I am going to be Chairing, I understand, from 2 to 2:45, I will save the highlights of my statement for that time. But I do want to point out that this matter is of grave concern to myself and my senior colleague, Senator Stevens, representing the State of Alaska, because we appear to be approaching a Catch 22 in the sense of as there is less prioritization for OCS exploration off other States, it focuses more on us.

And that is not a very desirable position to be in, because we stand to be criticized under the justification by some of the environmental groups who would have you believe that it is not in our best interest to have OCS leasing off any State, and if we reduce it off California and Florida, that is a rationale for a generalization that is prevailing.

So, I would thank you.

The CHAIRMAN. I thought I would say something while Congressman Panetta is here. I am sorry he has left, because it will sound like a cheap shot if I say it is his absence, yet I am constrained to say it.

He was talking about drilling 18 miles offshore in order to stay out of sight of the shore, but still ascertain what the structures are between there and the shoreline. It is even safer to drill in Idaho, and we invite people to do that. [General laughter.]

Senator MURKOWSKI. I thought you grew potatoes as a matter of course.

The CHAIRMAN. We can spud in a well between potatoes.

Mr. Secretary.

STATEMENT OF HON. DONALD PAUL HODEL, SECRETARY OF THE INTERIOR

Secretary HODEL. Thank you, Mr. Chairman.

I welcome the opportunity to be here today to discuss this matter. It has been dealt with for too long in the dark of the appropriations process, and not in the light of the substantive, authorizing committee process. It has been dealt with without debate.

Practice clearly makes perfect or at least better, because I would say, listening today as I did a week ago to the testimony of the panel preceding me, the issue has been joined better today with the sharpening of the questions from this committee.

I think your statement, Mr. Chairman, set the context for this hearing very well. This is a national resources issue, and you have stated the picture very well. We won't go through that.

With your permission, I would like to submit for the record a lengthy statement and summarize it.

The CHAIRMAN. It will be made a part of the record.[1]

Secretary HODEL. Thank you.

This is a national issue. It is not just a California issue. There is a potential impact on California, and that impact is also a national issue. We have questions of energy supply, trade deficits, environmental concerns, and economic issues. It is also not a partisan issue, but it is a highly politicized issue in California, particularly in those districts along the coast.

And as we hear daily of increased attacks on tanker traffic in the Persian Gulf, and we hear about attacks on Kharg Island, I hope it brings home to us that this truly is a matter of real concern. I hope no one suggests that this single element—this single program alone—is going to solve any problem.

This is an element of a much broader national effort to achieve some proper response in the area of energy for this country. Also, it is important to recognize this is not an issue of recent origin. It is at least 20 years old, and it is bipartisan in that respect as well.

The lawsuits which I am fighting today and which my predecessors fought were filed against President Carter's Secretary of the Interior, Cecil Andrus, when he proposed his first regulations under the 1978 OCS Lands Act, so it has not been partisan, and it has not been recent.

I think the issue was raised by Senator Bumpers that we have no effective energy policy. I would like to say I think we do have an energy policy in terms of having stated what we are trying to achieve.

What I feel we lack, and it is a dreadful lack, is a consensus on how to achieve those energy goals. I think we have energy goals we can agree upon. As we seek a balanced and mixed energy supply, we have great differences and inconsistencies among many, if not all of us, as we deal with this issue. Congressman Panetta listed some of the concerns about what the administration is doing.

Congressman Panetta happened to be one of those who voted for the major rescission of funds for the Synthetic Fuels Corporation. He had a reason, no doubt, but it is not just at the feet of this administration that the concerns about the inconsistencies in our energy response need to be laid.

The GAO report that has been referred to indicating that perhaps by going to an areawide leasing program we have lost substantial revenues for the Federal Government is in our opinion substantially flawed. I would be happy to have prepared for the record a more detailed response, but we believe that the GAO report basically makes a fundamental error in not taking into account the significance of when the tracts were offered and the benefits of obtaining the economic return earlier rather than later.

If we received $3 billion in 1981, 1982, and 1983, instead of spreading $5 billion out over 10 years, depending upon which discount rate you use, you can end up with significantly different numbers. With the permission of the chairman, I would like to have prepared and submitted a response on the GAO report.

The CHAIRMAN. It will be made a part of the record.[1]

Secretary HODEL. But intuitively, if we just think about it, if you had property to sell that was thought to contain oil, you recognize you would very likely receive a very much higher return if you had been offering it in 1982 and 1983 than if you were offering it in 1985 or perhaps in 1986, with the change in the expectations of oil price. Back in those days there was still the expectation that the oil price would rise substantially into the 1990's and beyond.

I think it is important, Mr. Chairman, that we try to restore the integrity of the orderly process—the statutory process—that was created by the 1978 OCS Lands Act.

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[1] The information submitted follows Secretary's Hodel's prepared statement.

That act requires that the Secretary weigh and balance a whole array of issues which are spelled out in the act. It sets forth purposes. In an open letter which I sent to California before going there to conduct 11 town hall meetings on this preliminary agreement, I emphasized that I was not willing to sacrifice the California coast, nor was I willing to sacrifice the Nation's energy security. It seems to me still, in spite of the current state of affairs, that those are not inconsistent or irreconcilable objectives. They are what the statute requires, and what can be done, but it has been restricted by the fact that for the last 4 years the Congress of the United States for all practical purposes has amended the OCS Lands Act of 1978 by passing moratoria.

The first year it was intended to be a protection against imposition of a sudden or rapid sale, and there was concern that there was no consultation. We now have a tremendous record, an extensive record of consultation which we have been carrying out, and an extensive record of response to the comments that have been received.

Now, I must say that when I reviewed this issue as Secretary when I arrived here, it appeared to me that it was similar to a domestic relations struggle that had been going on for 20 years, and I found myself thinking, do I really want to step into the middle of this battle, or should I just leave well enough alone and perhaps be criticized by the committee for not consulting, but that would be a relatively low key criticism, or should I try to do something to try to break this logjam that has gone on for too long?

I felt that that was a far more important thing to try, but I recognize that when you step into the middle of that kind of a struggle, the chances are that if you are not successful and if you are not successful quickly, you will have both parties angry at you, and I would say I have achieved that part at least quite successfully.

I began the negotiations with the antidrilling members of the California delegation because they were the people who were geared up and prepared again to insist upon a moratorium. It seemed to me that that negotiation was appropriate. I did not invite other members of the delegation, and thereafter once we began the discussions I did not think to, nor did I suggest that we should include others.

I did leave that issue to the delegation members that I was dealing with, and I don't fault them. It seems to me that at that point we were simply trying to ascertain whether could we even come up with the statement of a possible equation for bringing about this balance, and it wasn't at all clear that we were going to make it, as a matter of fact.

Over two-thirds of the coast of California, all of central and northern California, has been off limits for 4 years, and actually hasn't been drilled for 20, and in southern California the largest share is still off limits, and that area adjacent to the coastline has been set off limits by the moratorium.

We hit a lot of impasses, and I must say it is not apparent from Mr. Panetta's testimony. In the course of the negotiations, I purposefully and intentionally indicated that I would withdraw from consideration of leasing in the next 5-year plan certain areas that kept arising as environmentally sensitive areas, such as Big Sur.

Early on I indicated that regardless of the outcome of these negotiations, whether we could achieve agreement or not, I would propose to leave out of the next 5-year plan the Big Sur area simply because I recognized what an intensely, strongly felt issue that was. I did the same thing, incidentally, for some other areas that were thought either not to have resources or were statutorily precluded.

What I found was even the areas that were statutorily precluded kept coming up in conversation as areas that were in jeopardy by any kind of consideration.

In order to make it plain that they were not in jeopardy, that I really was hopeful that we could try to achieve some understanding on this, I excluded, in addition to the Big Sur, the Point Reyes area, which is already statutorily protected right in the 1978 OCS Lands Act. As a matter of fact, the area off San Francisco Bay, and the Farallon Islands, which are in a marine sanctuary, are therefore otherwise protected.

But it was an effort to try to face into the very argument that we had here earlier this morning. These areas were identified because they first of all had either statutory protection or limited resources, and had a high intensity of what was called environmental concern.

As a result of the discussions, we finally achieved what was called a preliminary agreement. It says by its very terms that it was preliminary. I won't quote it again. It has been quoted here today.

The delegation knew that it was preliminary, and indicated that they wanted to act rapidly enough to determine whether we could bring it to final fruition or not in order to have an opportunity to reimpose a moratorium if that was necessary. There would be no reason for their concern about that if they were convinced it was a finished, final deal that simply would never be challenged.

They wrote an op-ed piece in which they quote the same thing again.

It was referenced earlier this morning about the energy emergency clause. We talked about the year 2000 in this agreement—for the areas that were not included in the 150 tracts there would be no drilling to the year 2000. And I indicated clearly that I thought that would be too long a period of time because I saw the risk of a national energy emergency of some kind. It was suggested that perhaps the way to deal with that would be to come up with an energy emergency clause, and again, I indicated what I understood about the process made me doubtful as to whether that would work, but I was willing to try that as a means of solving the problem if it in fact would have some efficacy.

But if it takes you 8 to 15 years or whatever to get into an area and produce it from the time you are permitted to do so, you don't do very much in the case of a national energy emergency by having that kind of clause.

Now, what happened was we came to this last meeting where 63 tracts had been offered by the delegation, and I had indicated some 210 tracts would be the absolute rock bottom that I could see would provide some potential for reasonable resources.

It was apparent we were at another impasse. It wasn't the first, probably not the last in this process, and the final offer was suggested, what about 150 tracts? Now, the 150 tracts, I need to make plain, do not correlate to the 210 tracts. There is some overlap, but the 150 are not pulled from the 210.

The 150 are pulled from 900 tracts that we had initially laid on the table as the areas of potential. We had labeled them actually the areas of high potential. They would be the only basins we were aware of in the shallower waters off the coast of California.

Senator **Bumpers**. Mr. Secretary, you didn't bring any maps with you today so we could see these areas?

Secretary **Hodel**. I have one set of maps.

Senator **Bumpers**. I can't tell much about these in your statement. They are not very clear on my copy.

The **Chairman**. Can you provide for the committee's use the maps that will indicate first where the 900 are, how that relates to the known geological structures or suspected geological structures, and how that relates to the 210 and the 63 and to the 150 that were finally——

Secretary **Hodel**. Insofar as some of those tracts were specific, we will do that. Now, with the 900, we looked at the basins off the California coast. There are just certain areas that are thought to contain resources. We looked at those, suggested those would be the areas of interest.

[The following maps were submitted by the Interior Department:]

Attached are maps (shown as Map "A") which depict the 63 blocks offered by Members of the California delegation involved in the leasing negotiations as well as maps (shown as Map "B") which depict the blocks which composed the "preliminary agreement."

Please note that Map "A" also shows the general outline of 5 basins in the Central and Northern California Planning Areas. The 900 blocks identified by the Department of the Interior as potentially promising fall within the boundaries of these basins.

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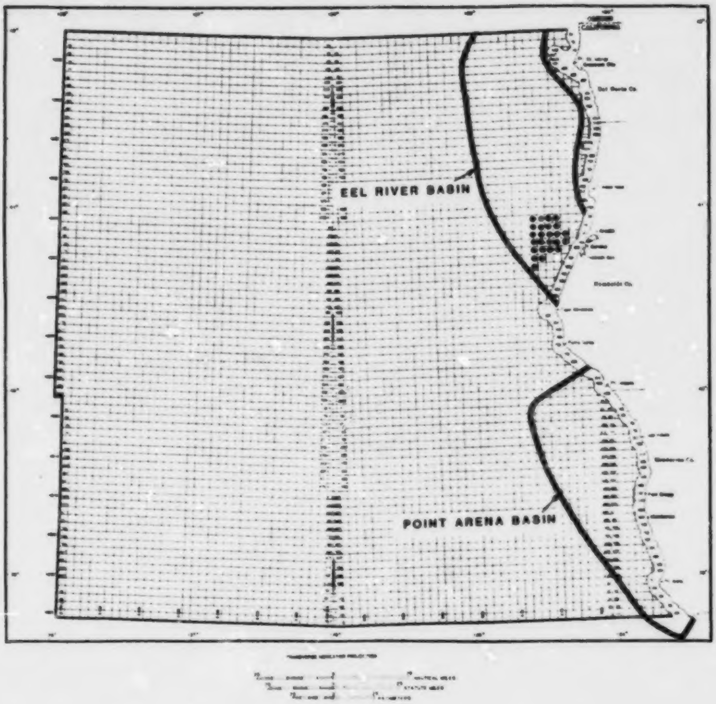
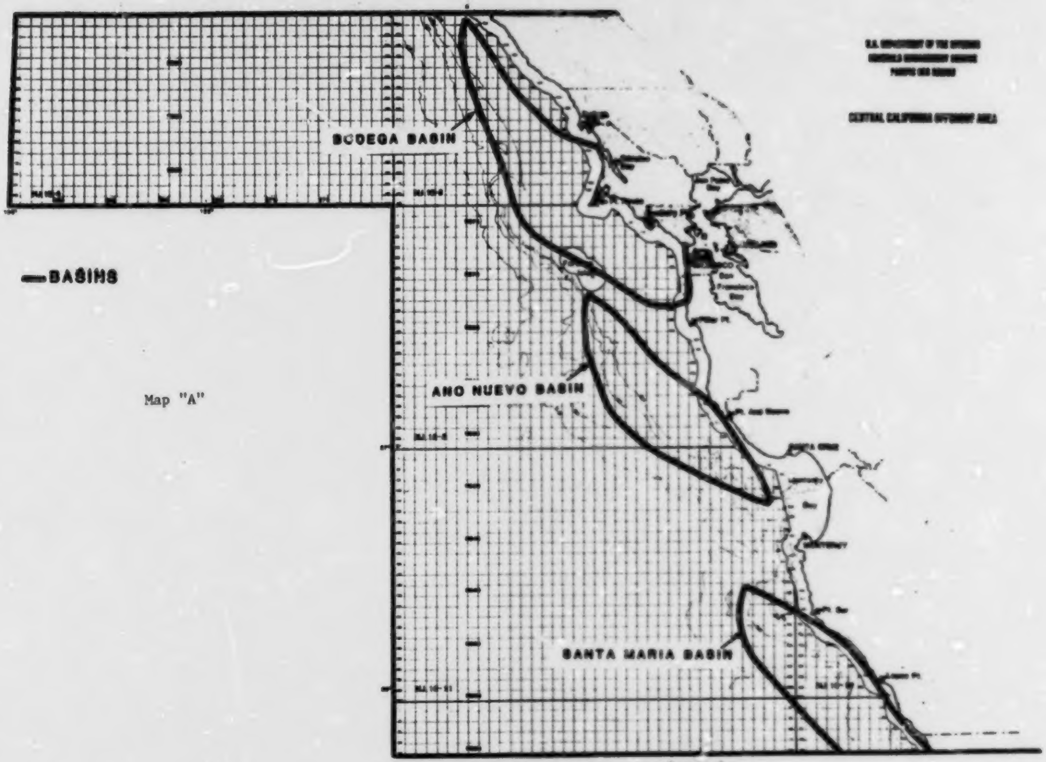

EEL RIVER BASIN
POINT ARENA BASIN

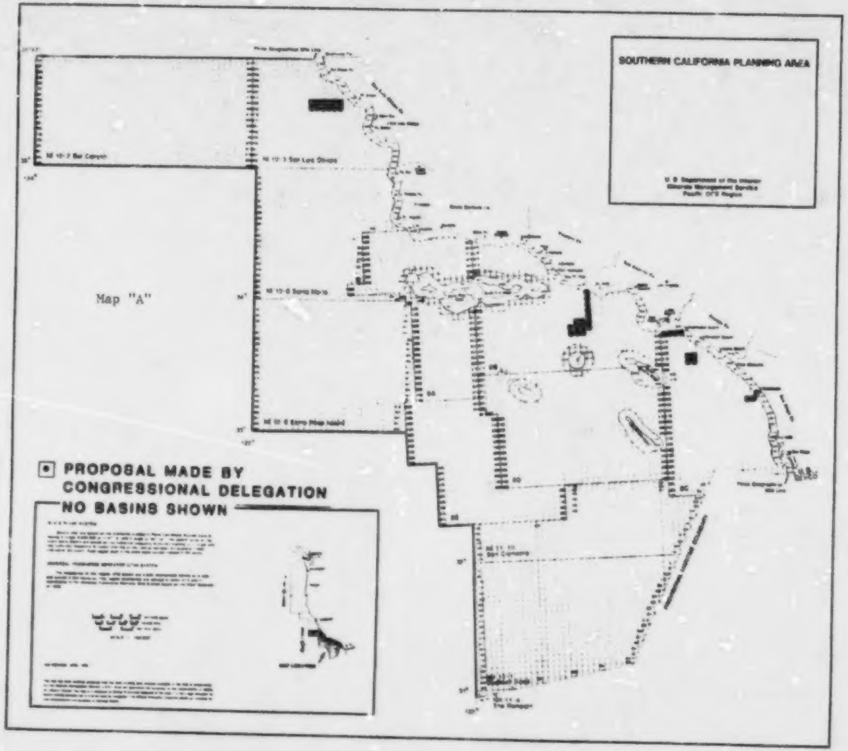
⊡ PROPOSAL MADE BY CONGRESSIONAL DELEGATION

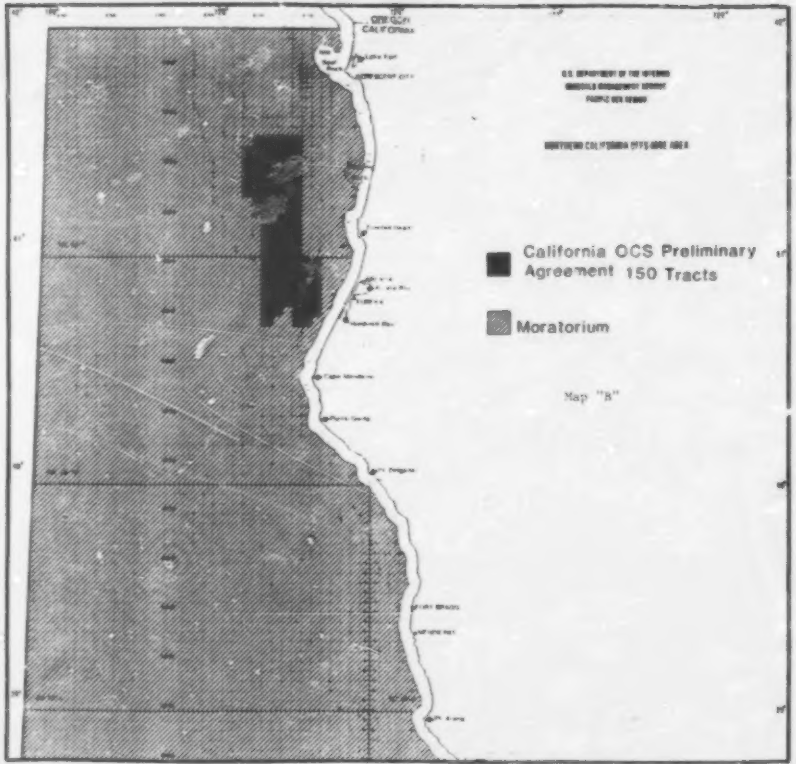
▬ BASINS

Map "A"


U.S. DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
PACIFIC OCS REGION
CENTRAL CALIFORNIA OFFSHORE AREA
BODEGA BASIN
ANO NUEVO BASIN
SANTA MARIA BASIN
— BASINS

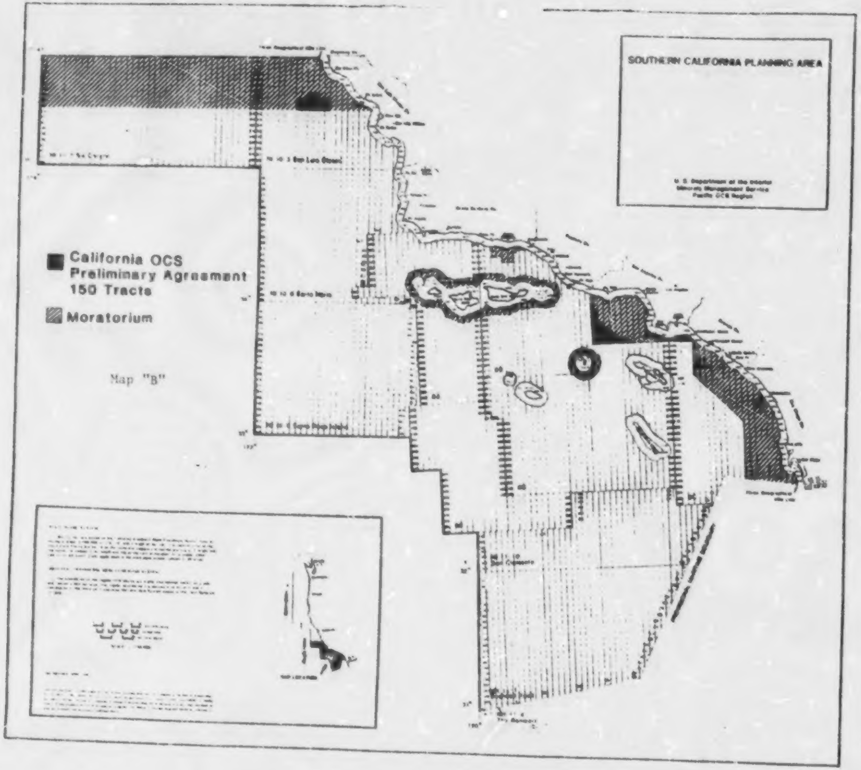
Map "A"


SOUTHERN CALIFORNIA PLANNING AREA
U.S. Department of the Interior
Minerals Management Service
Pacific OCS Region
Map "A"
NI 10-3 San Luis Obispo
NI 10-6 Santa Maria
● PROPOSAL MADE BY
CONGRESSIONAL DELEGATION
NO BASINS SHOWN


OREGON
CALIFORNIA
California OCS Preliminary Agreement 150 Tracts
Moratorium

Map "B"

106


SOUTHERN CALIFORNIA PLANNING AREA
U.S. Department of the Interior
Minerals Management Service
Pacific OCS Region
■ California OCS Preliminary Agreement 150 Tracts
▨ Moratorium
Map "B"

Secretary **Hodel**. We were not seeking to lease or drill in areas that don't have any potential, but it has to be understood—and I know this committee does, but I sometimes think that some of the spokesmen on this issue don't—that not every tract even within a basin is on a structure. It is ultimately only the structures that hold potential interest for leasing, and once that is done, only some of the structures prove to have oil in them, and therefore with respect to the 150 tracts I indicated at the time that they were offered that they didn't look to me as if they were particularly promising tracts.

I was very concerned about the resource, but I said I don't know enough about those tracts. I am astonished to hear some people say today it was the Department's information and therefore we had to know everything about those tracts. We have not looked at those 150 in terms of what their resource potential was.

I said I didn't know what it was, and I really wasn't comfortable rejecting the proposal because I had doubts based on what I had seen, yet I certainly wasn't in a position to accept those tracts without knowing whether they really contained the resource.

I suggested that we needed to go out and consult, and I think frankly because only a portion of the delegation was involved, that was clearly the appropriate thing to do. I wasn't particularly concerned about the lack of participation of some of these other members of the delegation because this was not a final agreement.

The COST-wells issue I also raised questions about because frankly, these test wells, as Congressman Panetta referred to them, are called COST wells. They are continental off structure stratographic test wells. They are purposely drilled where you don't think there is oil in order to learn about the geology.

We know more about the geology already from the drilling that was done back in the 1960's than we would expect to learn from the COST wells, but we really only know a limited amount from the number of wells that have been drilled.

Now, the moratorium vote was imminent at the time this last meeting was held. We were meeting on a Friday night. The people were running for airplanes to get home and to return Monday night before a moratorium vote on Tuesday morning, and it was fairly clear nobody knew what the outcome of that moratorium vote would be.

They felt that if we were going to make some progress in this domestic relations struggle, we needed to try to keep the parties talking, and we needed to move forward. We then went forth with a statement which has been entered into the record, and I proceeded to set up a series of town hall meetings along the coast of California, and I heard a great deal.

What I did hear was that we had begun to establish an equation here on the environmental side. We had now satisfied all of the critics. We heard about all those people who favor it. What we didn't hear about earlier today is that I was informed in southern California by supervisors of counties and mayors of cities that they will sue to block this program if we settled on the preliminary agreement. They will not accept the preliminary agreement.

Now, I heard Senator Cranston say we should go forward and put the preliminary agreement into law. I hope you listened carefully. He also said except for, and then he proposed to amend the preliminary agreement. So it was hardly a final agreement that had been reached.

The other side of the equation also turned out to be, as I had feared but had hoped to the contrary, not satisfactory. Our estimate is that between 5 and 7 percent of the resources that are locked up by the moratorium, and I want to make this plain, it is not the resources off the California coast, but that smaller amount that are locked up in the 6,460 tracts, of that smaller amount only 5 to 7 percent we now estimate based on what we have heard and tried to analyze is potentially in the 150 tracts.

To put it differently, we estimate that from 50 to 200 million barrels of oil equivalent are in those 150 tracts. Now, to put that in further context, I am told that off the coast of California that at the very minimum in the least difficult areas, the shallowest water closest to facilities, 25 million barrels in a field is a minimum for production.

More likely the figures are in the range of 50 to 80 million barrels. If that is the case, there is a substantial chance that no field with a sufficient amount of oil would appear in these 150 tracts to make them attractive, and we did hear that time and time again. So the conclusion I reached was that the equation is not balanced. Maybe we have found the right kind of equation, but we haven't balanced that equation.

I listened to both sides, Mr. Chairman, the resource side and the environmental side, in the course of my trip down the California coast. I had never heard of Cordell Bank, but in the hearings I was told about the problems and concerns about Cordell Bank, and we went back to the drawing board and looked and concluded it was not an area of considerable resource potential.

It is an extension of the Farallon Islands just north of San Francisco Bay. And we added that to the list of tracts that will not be included in the new 5-year plan, again as a means of trying to accommodate. We added the area outside of Monterey Bay and emphasized that the current ecological buffer zone in Santa Barbara and the Channel Island national marine sanctuaries would not be drilled.

Now, I think that we concluded as we went along that this problem is really a political problem, not an environmental problem. There are limited resources in the 150 tracts. If we are going to have a viable equation, we need to have one which provides some resources, or I can't in good conscience say it is in the national interest.

That was the message which I took to a meeting with a much larger group of members of the California delegation on the 10th of this month that resulted in some of the more strongly worded comments that we have heard since. I do not think it is appropriate for us to blindfold America as to what those resources are.

It seems to me that what we need to do is take that equation, try to continue to accommodate the concerns that continue to be raised on the environmental side of the equation, but also try to improve the resource side of that equation.

There have been some positive statements. Congressman Lungren, and Congressman Bosco are suggesting means of trying to keep this process going, and it seems to me we need to have these two points of view seeking grounds and criteria upon which we can continue the discussion. I was pleased to hear Congressman Panetta indicate today somewhat of a shift in position that he will be willing to continue to discuss.

As of the hearing last week, he was quite a bit more adamant that he was not willing to, but I think it is important there is that kind of movement. I am not a bit discouraged that we have not achieved in the space of 12 weeks a settlement of something that it took this country 20 years to get into.

What is at stake, Mr. Chairman, is a draft 5-year plan. There is no sale in the moratorium area until late 1987 or early 1988 that would be possible under the OCS plan. With or without a moratorium, it is our view that the moratorium language allows presale activities to continue.

For instance, we can make a call for information. We can gather data, we can do the environmental assessment, the EIS's, but we cannot hold a sale. In other words, we can be ready to do so. Hopefully we will reach agreement which will accommodate everybody's concerns, and then we can go forward without having to be delayed.

But we have plenty of time for this Congress to decide to impose a moratorium between now and 1987, because even after the final 5-year plan is completed, we can't hold a sale until probably, as I say, late 1987, and if it were necessary, it could then be imposed, unless otherwise directed, Mr. Chairman.

It seems to me my obligation as Secretary is to try to continue to carry out the 1978 OCS Lands Act Amendments, and I hope and I ask that the committee will not permit me to be otherwise directed to put up some kind of moratorium. I do not think we ought to be amending the OCS Lands Act indirectly in the appropriations bill.

I don't think that is in the national interest. I don't think it is in California's interest, because ultimately, as many have said here today, and many reports in California have recognized, the day will come when America must have the resource. It would be much better to approach it in the orderly, proper weighing manner provided in the OCS Lands Act than to do it headlong in a panic at some time of crisis.

That is all wrong. It won't produce the necessary resources, and it won't protect the environment, as I think we are all committed to doing both.

[The prepared statement of Secretary Hodel and response on the GAO report follows:]

Testimony of Donald Paul Hodel
Secretary of the Interior
before the
Senate Committee on Energy and Natural Resources
September 17, 1985

INTRODUCTION

Mr. Chairman and Members of the Committee, I appreciate the opportunity to discuss with you today the issue of leasing in the Outer Continental Shelf (OCS) offshore California. It has been a controversial one for decades. It is my hope that, by means of continuing dialogue among interested parties, such as will occur in this hearing, we can shed light on some of the more important aspects of the issue, cause the controversy gradually to subside, and, above all, join together in doing what is right for America.

Some months ago, certain members of the California congressional delegation who support moratoria and I began a series of meetings to find out if it was possible to reach consensus on the issue. My objective in the discussions was to attempt to find a basis whereby the California OCS program, which had been beset with congressionally imposed blanket moratoria for the past four years, once again could move forward in the orderly fashion contemplated by the OCS Lands Act Amendments of 1978 (OCSLAA).

By mid-July, the delegation members with whom I had been negotiating and I announced a "preliminary agreement." We all made it plain from the beginning that we intended to consult with interested public officials, groups and individuals to obtain their views on the preliminary agreement. This was because, as our joint announcement stated, "it is felt that a final agreement cannot be concluded until there is further consultation with" such parties.

I therefore spent the better part of two weeks in California -- listening to and learning from the people of that state and many of their public officials. In my testimony today, I would like to share with you both the information I obtained and my reactions to it. Moreover, Mr. Chairman, I look forward to having the benefit of your current thinking, and that of the Committee, about these issues.

This mutual exchange of thoughts is important, because, more than ever I believe the complex issues raised by the effort to impose blanket moratoria on OCS activities offshore California should be resolved if at all possible by consensus, rather than by confrontation. It is in this spirit that I welcome the opportunity today and in the days ahead to have us all pursue together a resolution by accommodation of these matters which are so important not only to California, but the Nation.

I. THE BACKGROUND IN CALIFORNIA

A. Summary of California OCS Leasing Prohibitions Prior to Fiscal Year 1982

Prior to imposition of moratoria by Congress, certain OCS areas offshore California, believed to possess environmental characteristics that were incompatible with OCS oil and gas development, were withheld from the federal leasing program. In two cases, the withholding was accomplished administratively (Santa Barbara Channel Ecological Preserve and Buffer Zone, Channel Islands National Marine Sanctuary); in one case, it was accomplished through legislative action (Point Reyes).

Santa Barbara Channel Ecological Preserve and Buffer Zone

All or portions of 10 tracts offshore Santa Barbara were designated as a Federal Ecological Preserve by Public Land Order 4587 in March 1969. Eight additional full or partial tracts adjacent to the Preserve were designated as the Buffer Zone, which also was removed from leasing consideration by the Order.

Channel Islands National Marine Sanctuary

The Channel Islands National Marine Sanctuary, designated as such in September 1980, includes the ocean area from the mean high tide line of the Channel Islands seaward 6 nautical miles. Tracts which fell within this area were excluded from both Sale 48 (1978) and Sale 68 (1982) even though regulations in effect at the time of those sales did not ban leasing in the Sanctuary. On March 30, 1982, the National Oceanic and Atmospheric Administration (NOAA) promulgated final regulations prohibiting oil and gas leasing in the Sanctuary.

Point Reyes

In the OCS Lands Act Amendments of 1978, Congress recognized that a specific area can be so unique that it should be excluded from OCS activities. Therefore, the Act specifically prohibits leasing in an area within 15 miles of the boundaries of the Point Reyes Wilderness. In adopting this prohibition, Congress noted that it was not intended as a precedent as to whether or not similar protection would be afforded other wilderness areas.

B. History of OCS Leasing Moratoria Offshore California

The Fiscal Year (FY) 1982 Department of the Interior (Department or DOI) Appropriations Act prohibited OCS oil and gas leasing in the Point Arena, Bodega, Santa Cruz and Eel River basins offshore California, a total of approximately 736,000 acres. As part of the FY 1983 Appropriations Act, the moratorium was expanded to include all tracts offshore California located north of Morro Bay. The total acreage involved increased to approximately 35 million acres. The FY 1984 DOI Appropriations Act maintained the leasing prohibition offshore Northern and Central California and added a prohibition which prevented leasing tracts in Southern California, including the Santa Barbara Channel Ecological Preserve and Buffer Zone, the Channel Islands National Marine Sanctuary, Santa Monica Bay, and 3 to 21 miles offshore Newport Beach south to the provisional U.S./Mexico border. The FY 1984 moratorium included 6,460 tracts, representing 35 million acres offshore Northern and Central California and approximately 1.8 million acres offshore Southern California. The FY 1985 DOI Appropriations Act continued the FY 1984 moratorium offshore California.

When Congress enacted the 1985 Continuing Resolution, it clearly expressed increasing skepticism about the wisdom of blanket moratoria on oil and gas leasing on the OCS. The Conference Report stated that blanket moratoria would not be continued "in future years unless a case can be made that the pre-lease negotiation process with the Department of the Interior is inadequate to ensure that all resource values and Department of Defense needs are provided proper consideration and protection in specific areas, and then such moratoria will not exceed the geographic limit of such areas."

II. CONSULTATION

A. The Consultation Record

In reviewing the Department's consultation record with California on OCS oil and gas issues, I am convinced we have established a pre- and postlease communications and negotiations process which is so comprehensive and effective that there can be no reasonable doubt as to the adequacy of our consideration of local and regional resource values, as well as Department of Defense (DOD) needs. The DOI has engaged in numerous consultation efforts with many representatives of California from the beginning of the OCS leasing program, and we have intensified our efforts in light of the FY 1985 Continuing Resolution Conference Report. The Department's prelease negotiation process has ensured that all resource values and DOD needs have been considered properly. Here are a few examples:

OCS Advisory Board

The 10-year old OCS Advisory Board is a major formal mechanism used by the Department to consult with the states, local governments, industry and public and environmental groups. In all, there are eight committees (the Policy Committee, the Scientific Committee, and six Regional Technical Working Groups) through which the Department and its Minerals Management Service (MMS) have access to the talents and advice of approximately 180 highly qualified individuals from throughout the country. These individuals represent all of the coastal states and the major scientific disciplines, constituencies, and groups concerned with offshore resource development. Over the years, the committees' deliberations and recommendations have played a strong and constructive role in planning and managing OCS program activities.

When former Secretary William Clark came into office, he moved immediately to change the thrust of the OCS leasing program. Prior to announcing major changes in policy at the OCS Policy Committee meeting of January 12, 1984, in Washington, D.C., Secretary Clark and the Director of MMS consulted with several state representatives including the California Secretary of Environmental

Affairs. In a meeting with the Environmental Affairs Secretary before the first day of the Policy Committee meeting, changes in OCS policy that California would urge were discussed. Based on these meetings, changes that California was advocating were announced in Secretary Clark's speech to the Policy Committee the next day.

The changes Secretary Clark announced were designed to increase state and public participation, to identify and resolve issues much earlier, and to better focus on areas where the oil industry truly seeks to search and produce. The changes would avoid dragging through the 22-month planning process those areas where industry interest is minimal and where conflicts exist with other uses. Attempts would be made to resolve state, environmental, and military conflicts and concerns much earlier in the leasing process.

Following the January meeting, the Policy Committee met again in June 1984 in Portland, Oregon, to discuss many issues including suggestions for development of the new 5-year leasing program. Comments from all coastal states and others were used in designing the new draft program. At its April 10-11, 1985, meeting in Santa Monica, California comments on the leasing plan were received and incorporated into the next step of the 5-year program.

5-Year Program. The OCSLAA directs the Secretary to develop a 5-year OCS oil and gas leasing program that will best meet national energy needs while balancing oil and gas activities with the protection of the environment. In accordance with the Act, three successive versions of each new 5-year program must be submitted for public review prior to final approval. The Draft

Proposed Program is issued first, followed by the Proposed Program and the Proposed Final Program. At least 60 days before the Secretary may approve the 5-year leasing program, he must submit it to the President and to the Congress, together with comments he has received. The entire process takes about two years.

The current program was approved in 1982. The development of the new program was initiated in July 1984 through a request by the MMS for comments from the Governors of coastal states, interested federal agencies, the oil and gas industry, environmental groups, and the public. Of over 150 comments received, 51 were from California (6 from state agencies; 26 from local governments; 3 from environmental groups; and 16 from citizens). In March 1985, the Draft Proposed Program was released for public comment. Of over 330 comments received directly by DOI, many again were from California (12 from state agencies; 29 from local governments; 15 from evnironmental groups; and 196 from citizens).

In addition to those public comments, DOI and MMS officials have consulted closely with many parties in California both before and after issuance of the Draft Proposed Program. Since January 1985, the Assistant Secretary for Land and Minerals Management, the Director of MMS and/or I have had meetings with the Governor, the Executive Director of the California Coastal Commission, and the Secretary of Environmental Affairs. Additional meetings were held between DOI and MMS staff and local government entities in San Luis Obispo County, Santa Maria, Morro Bay, and Santa Barbara. The MMS staff attended numerous meetings on the Draft Proposed Program (four sponsored by the California

Department of Environmental Affairs; one held by the California Coastal Commission; one with county and municipal officials in Sacramento; an OCS Policy Committee meeting in Santa Monica; and a Pacific Regional Technical Working Group meeting).

A number of features of the March 1985 Draft Proposed 5-Year OCS Oil and Gas Leasing Program -- and the preparations now underway for the next stage of program development, the Proposed Program -- resulted from the accommodation of concerns expressed by California parties through the consultation process.

In the Draft Proposed Program, the number of California planning areas was increased from two to three. The change responded to the comment of the California Secretary of Environmental Affairs that the Central and Northern planning area was too large and diverse.

All three California OCS planning areas ranked very high compared to all 26 OCS planning areas in terms of "net social value," i.e., the economic value of producing all the estimated oil and gas resources there minus the estimated social costs of such production. These high MMS rankings, plus comparably high industry interest rankings, had made all three California areas logical candidates for biennial rather than triennial sales. However, the Draft Proposed Program slowed the pace of scheduled standard lease sales in planning areas offshore California from once every two years to once every three years. This change was in response to the comment of the Secretary of Environmental Affairs that the pace of leasing needed to be slowed to facilitate consultation with the state and localities.

The Draft Proposed Program's approach of "focusing on promising acreage" also reflected the state's call for a more "focused" approach. This approach will focus on areas of industry interest, thereby minimizing conflicts with environmental values through deferrals made earlier in the presale process.

Numerous parties in California called for deletion of entire planning areas or parts of planning areas. While the Draft Proposed Program made no such deletions, the March 1985 Federal Register Notice announcing it solicited further comments on possible special treatment for portions of planning areas (subareas). In addition, a major effort has been undertaken by MMS to analyze all subareas recommended for deletion prior to my decision on the Proposed Program. This effort also responds to a resolution passed by the Pacific Regional Technical Working Group which called for the analysis of possible subarea deletions in the environmental impact statement for the new program.

In response to comments by participants in the OCS Policy Committee meeting in April 1985, the analysis required by Section 18 of the OCSLAA, now being prepared for the decision on the Proposed Program, addresses "infrastructure costs" -- the added burden on local facilities and services resulting from OCS development and job creation.

Sale 80

Once the Department actually begins to plan a specific lease sale contemplated by a 5-year program, a whole series of further consultations occurs. Illustrative of this process are the extensive negotiations with the State of California to resolve potential sale conflicts in regard to Sale 80 (Southern California). I am advised that the following consultations took place.

The Secretary, the Assistant Secretary for Land and Minerals Management, and the Director of the MMS held a total of 18 meetings with state and local officials, including the Governor, the Secretary for Environmental Affairs, the Director of the California Air Resources Board, members of the California Coastal Commission, the Director of the California State Lands Commission, members of the California congressional delegation, and state legislators. Additional meetings involved MMS officials and staff and representatives of local governments, public interest groups, congressional staff, and the representatives of several state agencies. The MMS conducted public hearings on Sale 80 in San Diego, Long Beach, and Ventura, California, and participated in a public meeting in San Diego at which state and local government agencies and the public discussed issues relevant to the sale.

As a result of these discussions, a total of 17 tracts recommended for deferral by the state were deferred from Sale 80, which was held in 1984. An additional tract which MMS determined was in the area of state concern also was deferred, even though exclusion had not been specifically requested.

Numerous mitigating measures were proposed during consultations between the state and MMS for Sale 80. The Governor recommended that: MMS be required to consult with the California Department of Fish and Game (CDFG) when invoking a stipulation to protect biological resources; semiannual oil spill drills be unannounced; and measures be adopted to protect sensitive offshore habitats including the ability to detect oil lost at any time, and to require onsite oil spill containment and cleanup equipment, biological surveys, and where appropriate, offshore disposal of drill muds and cuttings. All of these measures were included in the final Notice of Sale for Sale 80.

Regional Office Negotiations. Even after a company acquires a lease on a tract, it must secure MMS approval of its exploration, development and production plans. Extensive consultation procedures, used in review of such plans, were established by regulation in 1979. Copies of the specific plan, the accompanying environmental report, and other associated documents such as the oil spill contingency plan are sent to affected parties and are available to the general public for review and comment. The MMS uses the comments received from all parties in making decisions on the proposed plan and in determining the appropriate mitigation measures to apply to the proposed action.

I am advised that recent consultations conducted for proposed OCS oil and gas projects offshore California include consultations with:

- State officials and supervisors from coastal counties on a bi-monthly basis with the Regional Director on a range of OCS issues.
- The California Department of Fish and Game (CDFG) concerning fisheries issues, including minimizing conflicts with fishing seasons and state endangered species.
- Local port authorities over issues such as the numbers of pipelines and their locations.
- Vandenberg Air Force Base concerning pipeline location and appropriate mitigation measures.
- Commercial fishermen's groups concerning the period in which OCS activities would be least disruptive to the fishing industry.
- The State Historic Preservation Officer concerning protection of historic and archaeological resources.

- The California Air Resources Board and the local air quality control districts concerning project emissions.
- The Friends of the Sea Otter concerning oil spills and commercial fishermen's associations concerning the protection of the biota from impacts of seismic activities.
- The California Coastal Commission concerning consistency of exploration, development and production plans with the California coastal zone management plan.

It would be impractical to detail all actions resulting from these regional communications because of their number and variety. However, as examples of steps taken at the regional level to implement the results of MMS-State of California consultation efforts, it is appropriate to note that work groups have been established to address the following issues:

- Air quality--the MMS Pacific OCS Region office is participating in and helping fund several air quality studies in California with representatives from the state, Ventura, Santa Barbara, and San Luis Obispo Counties, and the Environmental Protection Agency. The work groups design air quality studies, evaluate results and recommend measures to apply the results to air quality regulations.
- Sea Otters--MMS is working with the CDFG, California Resources Agency, the Office of the California Secretary of Environmental Affairs, and the U.S. Fish and Wildlife Service to evaluate the potential for translocating sea otters.
- Commercial Fishing--MMS is involved with numerous agencies and groups, including CDFG, California State Lands Commission, National Marine Fisheries Service, commercial fishermen, and oil industry representatives in work groups concerned with issues such as effects of seismic surveys, space

use conflicts with drilling vessels, pipeline routes, pipeline design, drilling discharges, and competition for harbor space. The work groups consider these issues, recommend studies, evaluate research data, and recommend methods to modify existing regulations if necessary.

- Development and Production Plans -- MMS is participating on Joint Review Panels (JRP) with state and local government representatives to produce environmental impact statements for development and production plans which satisfy the requirements of the National Environmental Policy Act and state environmental documentation guidelines. The JRPs direct the preparation of these documents, working to produce a document that is acceptable to all participating agencies.

Environmental and Other Groups. Consultation and coordination is conducted with environmental groups, industry, and individual citizens in accordance with the National Environmental Policy Act which requires a continuous and open process for determining the range of issues to be addressed in environmental impact statements (EIS) and for identifying the significant issues related to the proposed actions. This means the public is able to comment on all aspects of the oil and gas leasing process from the Call for Information and nominations that initiates the sale process through presale draft and final EIS stage to postlease development and production plan proposals.

I believe that Sale 80 illustrates this process very well. Prior to preparation of the draft EIS, I am informed, MMS contacted a large number of groups or private organizations (ranging from the Battelle Marine Research Lab to the Scripps Institute of Oceanography) to obtain data to evaluate the issues and concerns considered in the document. In addition to the public hearings noted earlier, MMS received written comments on the draft EIS from numerous environmental (e.g., El Dorado Audubon Society, Sierra Club) and industry groups, as well as from 23 citizens.

The results of public participation in the OCS leasing program are clearly illustrated by the use of the Regional Technical Working Group (RTWG) to shape the MMS environmental studies program. The Pacific RTWG membership includes state representatives from California, Oregon, and Washington, and representatives from the MMS, the Fish and Wildlife Service, the U.S. Coast Guard, the Environmental Protection Agency, the National Marine Fisheries Service, the oil and gas industry, the California Coastal Commission, the fishing industry, and other special interest groups. Regular meetings of the RTWG provide a forum for exchange of information and recommendations on technological advances, conflicts and conflict resolution, environmental studies, and program planning efforts related to OCS oil and gas activities.

Defense Issues

The Department and the MMS have held extensive consultations with DOD throughout the 1980's, and this effort has been intensified with the signing of a Memorandum of Agreement between DOD and DOI on July 20, 1983. Following that agreement, there has been ongoing consultation with DOD, including, I am told, almost daily contact with the DOD executive agent designated to describe and resolve DOD operational needs. As necessary, there also is contact with local commanders.

Despite national security needs, there sometimes is some flexibility on the part of DOD on the issues being discussed. As a result, we have been able to reach accommodations which the parties believe fully protect DOD and

NASA needs, while allowing OCS leasing, sometimes with additional restrictions, to proceed. We have leased no acreage on which DOD and DOI disagree.

One example is the recent Sale 80. As a result of extended negotiations between the two agencies, we agreed to delete more than 7.7 million acres to accommodate DOD.

Summary

In light of this extensive consultation record, I firmly believe the burden is squarely on the proponents of moratoria to demonstrate how we have not met both the letter and spirit of the charge the conference committee gave us to consult in order not to justify further moratoria. They cannot meet that burden. Consequently, if the commitments made in the Conference Report are to be taken seriously, the record commands the conclusion that no further moratoria are justified.

B. Preliminary Agreement

(1) Evolution and Purpose

It became clear to me that, once again, the historic opponents of an OCS program offshore California were going to attempt to seek blanket moratoria in the FY 1986 appropriations process. Such an attempt, of course, would be in spite of the fact that the exemplary record of consultations and negotiations by the Department and the environmental protections resulting from such consultations and negotiations, summarized above, clearly made it impossible for opponents of the OCS program to make a case that the consultation and negotiation process was inadequate to assure consideration and protection of environmental values.

In these circumstances, I felt there should be every reason to assume the House and Senate conferees would abide by their commitment not to impose blanket moratoria on the California OCS. But I also knew there would be substantial political pressure on them to ignore the record.

Therefore, beginning in June, I personally entered negotiations with certain members of the California congressional delegation. Involved at one time or another were both Senators, a varying number of Representatives, and/or their staffs. My objective was simple: attempt to find a consensus by which at least some of the areas offshore could be restored to the Nation so that, while protecting the environment, we could resume at long last the expeditious and orderly development of the OCS which the Congress had established as national policy.

The pro-moratoria Congressmen began by offering to exclude from moratoria a large number of tracts offshore Northern California (the majority of which were in water so deep as to make their economic development unlikely, at best) and a small number of tracts located in Southern California, including tracts located in the Channel Islands National Marine Sanctuary which are subject to NOAA regulations prohibiting their leasing.

A process of negotiation ensued, on which I shall elaborate later in my testimony because of its relevancy to the issue of how much resource is available in the tracts identified by the preliminary agreement. But I should point out that, during our negotiations, five concepts were in my thinking:

- Successful implementation of Departmental policy requires an all-out effort to attempt to achieve consensus on controversial issues. 1/

- At the point in the discussions when the issue arose, it was appropriate to take the word of the involved Congressmen that it was their judgment that, in view of the political pressures on them, they could not compromise further than by agreeing to remove from moratoria 150 tracts which specifically were identified by the Congressmen.

- Based on the assessments of Department personnel and opponents of OCS moratoria, it was not at all clear the moratoria would not be extended. At best, I was informed, the Appropriations Committee vote would be extremely close, and even defeating the moratoria effort in Committee meant the issue most probably would have to be dealt with again on the House floor. Based on past experience, there could be no assurance the House would not extend the moratoria and that the Senate would not recede to the House position in Conference.

- Regardless of the outcome of voting on the issue, the OCS program still would be plagued by lack of certainty and would be subject to attack by opponents because no consensus had been achieved on the issues.

1/ In testimony before the Senate Committee on Energy and Natural Resources (February 1, 1985), I stated: "I believe the Nation is best served by consultation, consensus and accord on Department of the Interior issues. The Nation is not well served by confrontation. Therefore, if confirmed, I intend to carry with me to the Department of the Interior a goal to build a national consensus on the broad policy matters within the jurisdiction of the Department. Certainly I recognize there will be conflicts and controversies surrounding individual actions and peripheral issues--that is the nature of the Interior Department. But, at the same time, I want to work closely with you in establishing broad national policies that are right for America and for the American people."

° In these circumstances, it might be more in the national interest to find out if we could justify a compromise on the number of tracts to be freed from the moratoria -- even if such number were disappointingly few -- so that, at long last, there could be assurance at least some of the 6,460 banned tracts could be explored and developed in accordance with the national goals Congress had defined in the OCSLAA.

(2) Provisions of the Preliminary Agreement

The preliminary agreement, set forth in its entirety in Appendix 1 to my testimony, contained three substantive provisions:

First: "150 of the 6,460 tracts contained within the present moratoria would be offered for leasing in accordance with environmental safeguards required by existing law." The tracts are depicted in Appendix 2.

Second: The remaining 6,310 tracts within the present moratoria would be "protected [i.e., remain in moratorium] until the year 2000, subject to a national energy emergency condition." There was no articulation of the last phrase, but it was understood by the parties to refer to circumstances evidencing a national energy emergency (such as, but not necessarily limited to, the President's decision to draw down the Strategic Petroleum Reserve), in which event the moratoria on the 6,310 tracts would be lifted.

Third: Notwithstanding the continuing moratoria, one COST well (a well drilled to obtain stratigraphic information) "could be authorized in each of the following three basins -- Pt. Arena, Bodega, and Santa Cruz -- on the condition that it not be closer than 18 miles from the shoreline and these wells would be subject to standard environmental safeguards as required by existing law."

In essence, the preliminary agreement, if it became final, would:

- modify the present draft proposed 5-year OCS program (approved by me on March 19, 1985) by:
    - deleting substantial portions of the tracts planned for lease in Southern California in 1987 and 1990;
    - prohibiting lease of Central California tracts planned for 1989; and
    - prohibiting lease of all but 99 of the Northern California tracts planned for 1987 and 1990; and
- prohibit future Secretaries from developing OCS 5-year programs for the period until 2000 except in conformance with the restrictions set forth in the preliminary agreement.

(3) Consultations and Acquisition of Information

The immediate parties to the negotiations were straightforward about the fact that ours was a "preliminary" agreement. The memorandum of the parties [Appendix 1 to this testimony] stated that the parties "have reached a preliminary agreement," and it observed that "it is felt that a final agreement cannot be concluded until there is further consultation with state and local officials as well as other interested parties." The memorandum went on to state that incorporation of a "final agreement" in legislation was "subject to the advice of state and local officials and concerned members of the public."

Such consultations were entirely appropriate, since, as I have been reminded time and again in recent weeks, the negotiation of the preliminary agreement ultimately involved only me and some California delegation Members who had a single point of view, namely, to keep tracts excluded from the moratoria to a minimum. Not all people -- and, as I eventually learned, not even all people who live on the California coast -- feel that way.

The provisions of the preliminary agreement pertaining to consultations with, and seeking the advice of, interested public officials and others were not inserted so such persons could feel good about their being involved in the process. Those who negotiated the preliminary agreement lacked the elaborate information and analysis, particularly concerning resource data in regard to the 150 tracts, which customarily are made available to the Secretary during the decisionmaking process concerning development of the 5-year OCS programs required by Section 18 of the OCSLA. For example, the Secretarial Issue Document concerning the Draft Propdsed Program for the next 5-year leasing program (mid-1986 to mid-1991) contains some 700 pages of detailed information and analysis.

As expressly was contemplated by the preliminary agreement, I therefore have engaged in extensive consultations with numerous individuals and organizations. I have received information from and heard the views of:

- Federal officials, including the Secretary of Energy;
- A substantial number of Members of Congress from California, Louisiana and Texas;
- The Governor, Lt. Governor, and Attorney General of California;
- The California Coastal Commission;
- Numerous Members of the California State Legislature (six Senators and 16 Assemblymen);
- Thirty California county supervisors;

- Forty-four mayors and 37 city council members of California cities;
- Representatives of the oil and gas industry;
- Representatives of other industries from all sections of the country directly or indirectly involved in or affected by OCS activities;
- Representatives of environmental and conservation groups;
- Representatives of minority and senior citizens groups; and, perhaps most importantly,
- Citizens.

Some of these persons communicated information and their views to me by letter; others met with me in informal discussions. By far the greatest number expressed their thoughts to me during a series of gatherings in the nature of "town meetings," which I sponsored in 11 California communities (Eureka, San Rafael, Santa Cruz, San Luis Obispo, Bakersfield, Santa Barbara, Ventura, Los Angeles, Long Beach, Newport Beach, and Oceanside) during the periods August 19 through 21 and August 29 through 31. These meetings were open to the public and afforded those in attendance, which generally averaged 150-200 people per meeting, and sometimes more, an opportunity to address those portions of the moratorium issues and of the preliminary agreement of greatest concern to them.

As I believe you may know, I kept the Chairmen and Ranking Minority Members of the House and Senate Interior Appropriations Subcommittees informed by letters of the substance of what I heard and learned from those town hall meetings, as well as my public meeting with the California Coastal Commission and my discussions with Governor Deukmejian and Mayor Bradley. I am gratified by the repeated expressions of the many public officials and citizens of California who, regardless of viewpoint, told us how appreciative they were that we cared enough about their views to come to California to listen.

It is with the background in mind that I would like to share with you some of the things we have learned since the preliminary agreement was announced in mid-July, as well as my thoughts concerning them. But I suggest that, before we assess the preliminary agreement in light of what we have learned, it would be well to remind ourselves of the national goals identified by the Congress when it enacted, and President Carter signed, the OCSLAA in 1978.

III. STANDARDS FOR ASSESSING THE PRELIMINARY AGREEMENT: NATIONAL GOALS IDENTIFIED BY CONGRESS IN THE OCS LANDS ACT AMENDMENTS OF 1978

In enacting the Submerged Lands Act and OCS Lands Act of 1953, Congress addressed its primary concern, which was to eliminate past uncertainties over OCS ownership and to assert federal control over the OCS lands and resources. However, as a House Committee noted in 1977, the 1953 Act established only "very general guidelines and directives" for managing the OCS.

It was not until Congress had gained a quarter-century's experience with OCS leasing that it replaced what it called the "all too general" and "bare bones" language of the 1953 Act with specific policies and directives. Following five years of study and debate, Congress passed into law the OCS Lands Act Amendments (OCSLAA) of 1978. The amendments' clear language and legislative history reveal that Congress intended that the Secretary of the Interior manage the OCS lands and resources so as to accomplish four basic objectives:

First: assure an assessment of OCS oil and gas resources "at the earliest practicable time" and promote "expedited exploration and development" of the OCS in order to meet national energy and economic policy goals "as rapidly as possible." (43 U.S.C. Sec. 1802(1) and (9))

The House Report reflected substantial Congressional concern that OCS exploration and development proceed rapidly, so that never again would the Nation suffer as it did during the 1973 OPEC oil embargo. The report cited high imports as causing continuing vulnerability to embargoes and consequent threats to the economy, to a favorable balance of trade and to national security.

It declared that, "the basic purpose of H.R. 1614 is to promote the swift, orderly and efficient exploitation of our almost untapped oil and gas resources in the Outer Continental Shelf." (House Report 95-590, 95th Congress, 1st Sess., at 53). The report went on to note that "during the 1980s, oil and gas development in the OCS is likely to be one of the single largest sources of additional domestic energy, and at a lower expense than most alternatives, in terms of development and impact cost." Id.

Mr. Chairman, I have the unshakable belief that OCS resources are just as important to the Nation today, and, insofar as California is concerned, almost as unexplored, as they were in 1978.

Second: "balance orderly energy resource development with protection of the human, marine and coastal environments." (43 U.S.C. Sec. 1802(2))

The Congressional desire for "balance" was further evidenced -- and complicated -- by the requirement that the Secretary select the timing and location of leasing "to the maximum extent practicable, so as to obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone." (43 U.S.C. Sec. 1344(a)(3)).

Finally, Congress sought balanced development in yet another respect. It recognized that, despite significant oil and gas potential off the Atlantic states, Alaska and California, virtually all OCS leasing, exploration and development between 1954 and 1978 had taken place in the Gulf of Mexico off Texas and Louisiana. Henceforth, there was to be "an equitable sharing of developmental benefits and environmental risks among [all] the various regions" of the United States.

Third: "assure that States and, through States, local governments which are directly affected by [OCS activities] ... are provided an opportunity to participate in policy and planning decisions relating to management of the [OCS] resources." (43 U.S.C. Sec. 1802(6))

The purpose of this requirement is to enable coastal states and communities to plan for and avoid socioeconomic and environmental impacts directly related to OCS exploration, development and production. The Governor of any affected state is given a formal opportunity to submit recommendations concerning "the size, timing or location" of a proposed lease sale.

State involvement in OCS program development is participatory only. However, the Secretary must accept the Governor's recommendations if he determines they strike a reasonable balance between the national interest and the well-being of the citizens of the affected state. If he finds the recommendations do not strike a reasonable balance, he may reject them. Local governments likewise are permitted to submit comments and recommendations, and the Secretary may accept them. Ultimate authority over the OCS leasing program, therefore, remains with the Federal Government.

Fourth: replace the vague language of the 1953 OCS Lands Act, with "detailed standards and criteria for the Secretary to follow in the exercise of his authority." (House Report, p. 54).

Many of these standards, criteria and policy goals are noted above. Obviously, conflict is inherent in implementing them. But the Congress -- wisely, I believe -- carefully crafted a specific process involving extensive consultation to help assure that conflicts and concerns are addressed, and insofar as possible, resolved.

The U.S. Court of Appeals for the District of Columbia, in State of California v. Watt ("Watt II"), 712 F.2d 584 (1983), while stressing Congress' desire "to promote the swift, orderly and efficient" exploration and development of OCS resources, noted that the 1978 Amendments outlined a "five-step process for achieving this expeditious but orderly development:" adoption of a 5-year leasing program and schedule of lease sales; sale of OCS leases; exploration; development and production; and, ultimately, sale of the recovered minerals. The court went on to say:

> "The five step process is 'pyramidic in structure, proceeding from broad-based planning to an increasingly narrower focus, as actual development grows more imminent.' Additional study and consideration is required before each succeeding step is taken. Thus, while an area excluded from the leasing program cannot be leased, explored or developed, an area included in the program may be excluded at a later stage."

As the court observed, it is the inability to reinsert acreage that has been dropped from the program that makes carefully considered, rationally based decisions essential. It is more logical, and certainly more in keeping with Congressional intent, to let the "pyramidic" process work and not delete tracts from further consideration early in the process, except for good and substantial cause.

I now turn to an assessment of the preliminary agreement in light of the substantive policies and the decisionmaking principles established by the Congress in 1978. Unless and until the Congress and the President change the law, my sense of my statutory responsibilities indicates that it is the proper standard against which to measure the wisdom of the preliminary agreement.

IV. ASSESSMENT OF THE PRELIMINARY AGREEMENT FROM THE PERSPECTIVE OF ENVIRONMENTAL CONSIDERATIONS

A. Consideration of Environmental Issues Raised

(1) Oilspills

In 1969, Santa Barbara was the site of the only blowout in the course of drilling some 31,000 wells in the state and federal waters that ever resulted in significant amounts of oil reaching shore. The effects were temporary and not nearly as severe as originally feared. My information is that biologists from the University of California and elsewhere reported that bird, fish and benthic populations were back to normal in little more than a year.

Most important, America resolved there would not be a recurrence of that accident. Beginning in 1970, new regulations went into effect which required subsea blowout preventers, more frequent inspections, oil spill contingency plans, establishment of oilspill cleanup centers, worker training programs, unannounced cleanup drills and other measures. Oil spill prevention and cleanup technologies and techniques improved markedly.

Nevertheless, while the actual effects of the 1969 spill are gone, memories of the event still linger. Many of those testifying in the cities I visited last month voiced fears of potential oil spills.

However, no one disagreed that the record since 1970 has been outstanding. No one claimed that industry's record of the past 14 1/2 years could not be duplicated. No one disputed the proposition that technological and regulatory changes since 1970 have reduced the risk of oil spills to a minimum, and enormously have increased the ability to clean up spills that might occur, before they can damage beaches, estuaries or marine life. That record, as compiled by the MMS, warrants mention.

- Since 1970, a total of fewer than 840 barrels have been lost due to blowouts, out of over 5 billion barrels produced from the entire federal OCS.
- Last year, only 10 barrels from both exploration and production operations were lost as a result of accidents on the California OCS, out of over 30 million barrels produced, and 9-1/2 of the 10 were recovered.

Several comparisons with oil pollution from other sources will help put this excellent record into even better perspective.

- According to MMS and Coast Guard data, during the period when OCS operations lost fewer than 840 barrels, tanker accidents in U.S. waters caused the loss of over 2 million barrels.
- A 1978 study by the California State Lands Commission reported that natural seeps along the California coast discharge 18,000 to 278,000 barrels of oil every year.

- And the 1985 National Academy of Science report "Oil in the Sea: Inputs, Fates and Effects" noted that the second most important cause of marine oil pollution (after tankering) was municipal and industrial wastes and run-off, particularly oil washing off streets into storm sewers and, ultimately, into our oceans.

Several representatives of local governments and environmental groups urged that, to reduce the risk of spills, OCS operators should be required to transport the crude by pipeline, rather than by tanker. Some thought this requirement should be absolute; others said it should apply where technologically and economically feasible. Few people mentioned the records noted above, or recognized that the risk of spills from tankers carrying imported oil would be reduced if imports were decreased by greater OCS production; however, some did.

A former chief of the OCS environmental studies program, observed at one town meeting that over a third of a billion dollars have been spent on marine studies related to federal offshore development. "No significant impacts have ever been detected," he said. "The public has been misled by bad information. In fact, sewage disposal in the ocean by large metropolitan areas in California and other States is a much more serious problem than OCS oil and gas."

Only two new facets of the oil spill issue were raised during my California trip. One was the concern expressed by a few that cleanup might be difficult along the sheer cliffs that exist along certain parts of the California coastline. However, they presented no evidence to refute the argument that the risk of a spill occurring at all is remote.

The second facet was the claim, made by some, that cleanup problems involving the wreck of the tanker "Puerto Rican" in the San Francisco Bay area proved spills cannot be cleaned up satisfactorily, especially in rough seas. However, these persons did not address the fact that this example is not applicable to OCS operations. The "Puerto Rican" was carrying refined product, which, I was advised, is much more difficult to clean up than is California crude, using current technology. Moreover, unlike the situation where cleanup apparatus is required to be in close proximity to OCS operations, the cleanup apparatus used in connection with the "Puerto Rican" spill had to be transported from Southern California since no OCS activities presently occur in Northern California.

(2) Commercial and Sport Fishing

There was considerable comment, particularly from Humboldt, Mendocino and Santa Cruz Counties, concerning potential impacts of OCS activities on commercial and sport fishing, which is highly important to their local economies.

I was struck by the apparent misinformation that apparently has been circulating within portions of the fishing community. For example, one person incorrectly asserted that a platform in 1,200 feet of water effectively preempts fishing operations over nine square miles of surface. My information is that deepwater exploratory drillships using mooring lines, instead of dynamic positioning devices, can preempt as much as 4 1/2 square miles. However, such exploratory drilling activities are temporary in nature and are regulated by MMS to minimize conflicts with fishing operations. In shallow water, MMS requires the use of methods (jack-up drilling rigs, for example) that, I am advised, affect only about five acres. The preemption area for a production platform, I have been told, is less than five acres, and only a few of the 18 platforms now standing in OCS waters off California are in or near important trawling grounds.

Most importantly, at none of our meetings did representatives of fishing interests dispute the point that lease stipulations are adequate to avoid or mitigate potential conflicts between OCS activities and fishing. Indeed, several fishermen stressed that drilling and fishing can coexist very well.

The MMS stipulations require that lessees consult with state and fishing organizations concerning the location and timing of seismic, drilling and other OCS activities. They also provide that pipeline valves and junctions be shrouded to reduce the likelihood that nets or trawls might get snagged on them.

Furthermore, as several fishermen pointed out and as this Subcommittee knows from its hearings on the subject, platforms act as artificial reefs that actually can benefit the ecology, increase fish diversity and populations, and enhance the catch. I am informed that the California Department of Fish and Game was one of the first to report on this phenomenon.

Santa Barbara Channel platforms, we have been told, are covered, up to four feet thick, with corals, sponges, anemones, scallops, mussels 2/ and other marine life. These species provide niches, food and hiding places for a wide

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2/ One small company alone harvests over 5,000 pounds of mussels a week from production platforms in the Santa Barbara Channel. Having had the mussels prepared three different ways earlier this year, I personally can attest to their desirability.

array of other animals, which in turn attract fish of all sizes. MMS tells me it is now recognized that platforms actually increase habitat available, primary or algal productivity, food supplies, shelter from current and predators, hatcheries for eggs and fry, local carrying capacity and, thus, the numbers, diversity and range of important fish and shellfish. I am informed that a single platform can harbor 20 to 50 times more fish than do nearby areas with soft mud or sand bottoms -- and up to five times more than neighboring natural reefs or hard bottom sites of similar size.

Finally, I personally have seen large colonies of sea lions, attracted by the abundant fish, actually scrambling on the floating pipeline at Exxon's Hondo facility in Southern California.

(3) Sea Otters

At the meetings in Santa Cruz and San Luis Obispo, concern was expressed regarding the potential adverse impact of oil spills on sea otters. A major point to be made is that by removing the areas of offshore Monterey Bay and Big Sur from further consideration for leasing, to which I already have committed, I have removed virtually all of the area the sea otter inhabits.

I am informed that sea otters, should they be covered by oil, could suffer potential destruction of the insulating properties of their fur, which could result in death. However, in light of the admirable record on the OCS in recent years regarding oil spills, and due to our efforts through consultation with federal, state, and local agencies to develop and implement effective mitigating measures, I find it unreasonable to conclude that OCS activities are irreconcilable with the continued well-being of California's sea otter population.

Prior to approval of lease sales and development activities, the MMS is required by the Endangered Species Act of 1973 to consult with the U.S. Fish and Wildlife Service regarding the effect of proposed OCS activities on endangered and threatened species, including the sea otter. Through this process, a determination is made as to whether particular OCS activities are likely to jeopardize the continued existence of an endangered or threatened species, and, if necessary, reasonable and prudent alternatives are identified which would alleviate or mitigate the danger to these species.

If it ever should be determined under law that proposed activities pursuant to a specific OCS lease sale would jeopardize the continuing existence of sea otters, I simply would not allow such activities to take place.

(4) Air Quality

State and local agencies making presentations at the town-hall meetings in California and/or involved in consultations with the Department have expressed two major concerns in regard to the potential impact of offshore development activities on air quality: (1) possible exacerbation of the present ozone concentrations which exceed the National Ambient Air Quality Standards (NAAQS), and (2) cumulative impacts from multiple facilities which individually may not affect significantly onshore air quality. Accordingly, there was expressed to me a desire that the DOI air quality rules applicable to OCS operations should be as stringent as the onshore State New Source Review (NSR) rules so as to attain and maintain the more stringent State Ambient Air Quality Standards (SAAQS). These NSR rules also contain a definition for Best Available Control Technology which differs from that used by MMS or EPA.

The MMS has taken several approaches to help resolve these concerns. These have included a review of the DOI air quality rules and the development of a) improved air quality models to estimate impacts, b) stipulations on lease sales, and c) restrictions on operational activities.

In December 1978, the DOI initiated a rulemaking proceeding to develop air quality regulations for OCS facilities which culminated in promulgation of final rules by Secretary Andrus on March 7, 1980.

The MMS believes the present DOI air quality rules provide a reasonable framework to handle and address the concerns raised by California. The rules provide for the analysis of cumulative impacts from multiple sources that individually are exempt from controls, provide for state and local agency input to the process, and expressly prohibit any OCS facility from causing new violations of the NAAQS in an attainment area.

Others disagree, and the DOI rules promulgated by Secretary Andrus have been the subject of four years of litigation. In a serious effort to resolve the controversy, the MMS has initiated a new rulemaking process to consider revisions to the existing DOI rules for OCS areas offshore California. Extended discussions have taken place between the Department and the State of California in an effort to settle the continuing dispute, and the Chairman of the California Air Resources Board (CARB) has expressed pleasure that the Department's January 1985 Advance Notice of Proposed Rulemaking (ANPR) reflects some of the state's suggestions and represents a strengthening of existing regulations. The MMS will continue to discuss the issues raised in the ANPR with CARB.

This matter was discussed in my recent meeting with Governor Deukmejian. A few months ago, his office had proposed consideration of what, for convenience, could be called "negotiated rulemaking," i.e., a procedure by which the principal parties to the current dispute attempt to negotiate the OCS air quality regulations which then would be proposed by the Department (which has statutory responsibility for such regulations) in a formal rulemaking proceeding in which all interested parties would participate. I suggested to the Governor that we consider the selection of a mutually agreed-upon "facilitator" who would assess in the first instance whether negotiated rulemaking holds the promise for success which I hope would be the case. Based on his analysis, we would then decide whether to move to the second phase of the effort, which involves the facilitator's working with all parties to the current litigation in an effort to simplify issues, to agree on undisputed facts, and to agree on methods to resolve remaining disputed facts or issues.

I am pleased to report to you that, in light of my meeting with Governor Deukmejian, our respective staffs will be working together to attempt to formulate a plan by which we can employ the concepts mentioned above in an earnest effort to resolve the OCS air quality issues once and for all.

The central unanswered question in discussions between MMS and California has been the contribution of OCS facilities to onshore concentrations of inert pollutants and ozone. Progress is being made on several fronts.

- The MMS recently has developed a new overwater air quality computer model called the Offshore and Coastal Dispersion (OCD) Model to calculate onshore impacts for inert pollutants. The MMS shortly will commence a review of existing facility impacts on onshore concentrations of the inert pollutants using the OCD Model. I am advised that the CARB recently has endorsed the use of the OCD Model for air quality assessments associated with the development from Sale 73.

- The MMS presently is participating in and funding two cooperative studies, the Joint Interagency Model Study (JIMS) and the South Central Coast Cooperative Aerometric Monitoring Program (SCCCAMP), to determine the future incremental contribution of OCS sources in the Santa Barbara Channel area on onshore ozone concentrations. 3/ Other participating agencies or parties involved in one or both of these studies are the counties of Ventura and Santa Barbara, the South Coast Air Quality Management District, the U.S. Environmental Protection Agency (EPA), the Western Oil and Gas Association, the National Park Service, and the CARB.

The MMS intends to use the results of these studies when making any decisions in the present rulemaking process. I am told the studies will be completed by the end of 1986, which means that substantial progress is being made on this central question and that we will have the new data and analysis before any lease sales offshore California are scheduled in the next 5-year OCS program.

3/ The JIMS will determine the incremental contribution of OCS sources to onshore ozone concentrations for typical meteorological conditions in the Channel area. The SCCCAMP will augment the meteorological and air quality bases available for computer simulations of the kind being conducted in the JIMS.

During the past two years, MMS has included additional air quality stipulations in the leases issued as part of Sales 73 and 80 and in the subsequent approvals of development and production plans. 4/ The Sale 73 stipulations require emission controls for exploration and development/production activities, evaluation of ozone impacts from all activities, scheduling constraints for exploration activities, control of emissions from tankering operations, and a performance plan for any installed controls for exploration and development/production activities. Lessees are required to comply with Sale 80 stipulations until MMS completes the present rulemaking process, and, regardless of costs or difficulties with compliance, any revisions to the DOI rules would apply to the Sale 80 leases.

Mr. Chairman, I am convinced that, in view of the exceptional efforts being made by the Department in consultation with the State of California and local governments, we are dealing responsibly and effectively with the air quality issues that have been raised. I believe we cannot have a viable OCS

4/ The MMS Pacific Region and CARB have formulated implementing guidance for the Sale 73 stipulations pertaining to control equipment for exploration activities, the scheduling of exploration activities, and the evaluation of ozone impacts from OCS activities. Where appropriate, any guidance developed for the Sale 73 leases will be reviewed and applied to the Sale 80 leases.

Companies will install controls as a result of the EIS's for Development and Production Plans written by MMS in cooperation with the local onshore Air Pollution Control Districts. The two platforms associated with the Pt. Pedernales development project will be basically all electric, using power from the onshore power grid. This will eliminate a substantial portion of NO_x emissions from the facilities.

Other companies have incorporated control equipment into the design stage of the platform. I am informed that the Exxon facility (which includes the Hondo A platform and the Offshore Storage and Treatment facility) installed a vapor balance system to reduce gaseous VOC (hydrocarbon) emissions, and gas turbines with a waste heat recovery system and water-injected gas turbines to reduce NO_x emissions. I also am advised that some facilities (Platforms Gina and Gilda (Union) and Platform Habitat (Texaco)) have installed electric cables to use power from the onshore grid to reduce platform emissions.

program if it is the cause of onshore communities' not being able to meet air quality attainment standards.

(5) Navigation

Several speakers at the recent California town-hall meetings expressed concern about the potential risk of collisions between ships and oil production platforms, and mention was made of the fog which frequently hovers over portions of the coast. Platforms are not allowed to be located in shipping lanes and must be in compliance with all safety requirements of the U.S. Coast Guard. There appears to be a wholly adequate safety system in place in this regard. No vessels have ever collided with exploratory rigs or platforms off California.

(6) Department of Defense

Of concern to industry and several others are extensive DOD operations in Southern California. The Navy, Air Force, and NASA all have extensive operational needs in the Central and Northern California offshore areas and, particularly, in Southern California. Consequently, there are many areas DOD has insisted be placed off limits to OCS leasing and operational activity.

As detailed earlier in my testimony, we have undertaken extensive consultations with DOD to minimize our conflicts and to work out equitable arrangements. The DOD has been forthright and flexible in dealing with us to accommodate both of our high priority missions.

(7) Special Areas

Obviously, the viability of the OCS program will be jeopardized if there is a widespread public perception that environmentally sensitive areas are not being protected.

In the OCS Lands Act Amendments of 1978, Congress recognized that a specific area can be so unique that it should be excluded from OCS activities, and it therefore prohibited leasing in the area within 15 miles of Point Reyes. Although the Congress made it explicitly clear that its excluding the Point Reyes area was not to be regarded as a precedent, I have come to the conclusion, and have informed the California public, that, in addition to the exclusion of the Point Reyes area, the forthcoming OCS 5-year program will not permit OCS leasing offshore the Big Sur or the Farallon Islands, the area outside San Francisco Bay, the area in the immediate vicinity of the Cordell Bank and the area outside Monterey Bay.

I have decided upon these exclusions, regardless of the outcome of the preliminary agreement, for two reasons: (i) in my opinion, the areas mentioned appear to be unique, and their exclusion from the next 5-year program should not set a precedent for other areas; and (ii) those areas are so treasured by Californians -- and by those of us who are privileged to visit them -- that I do not see any way we ever could reach consensus on the matter of OCS development offshore California if most all of those areas were not excluded.

Two additional areas, the Santa Barbara Ecological Preserve and Buffer Zone and the Channel Islands National Marine Sanctuary, have been excluded from lease sales for many years, yet I have sensed concern that there might be an effort to include those areas in future lease sales because of their very substantial resource potential. The MMS estimates they may contain as much as 275 to 300 million BOE. In order to put this fear to rest, I announced in Santa Barbara that those two areas would not be included in the forthcoming 5-year OCS program.

(8) View

The opportunity to view the open ocean without the presence of drillships or oil production platforms constitutes in my mind the ultimate environmental issue raised at the meetings. I use the word "ultimate" because it is the one environmental issue over which the Department has no practical control. Many of the speakers raising the issue of view were quite candid about the fact that their lifestyle simply is inconsistent with any intrusion on their ocean view. Evidence of how seriously some of them take the issue of view is found in the fact that in portions of Newport Beach, I am told, homeowners in some private developments are required to cut trees which restrict their neighbor's view.

There may be some misimpression about the risk to one's view caused by federal OCS operations. Several speakers seemed to be saying that, if the current moratoria were lifted, the area offshore California would be turned into a continuous series of oil platforms. As you know, however, of the 1,562 tracts offered for lease offshore Southern California since the inception of the federal leasing program, only 312 (20 percent) have been leased. Of those, only 121 (39 percent) have had exploratory drilling, and there are 18 production platforms on only 13 of the tracts (4 percent of those leased and less than 1 percent of those offered for lease). At that distance, an average 200-foot platform would appear only dimly on the horizon and appear to be one-half inch in size at arm's length.

Just as the citizens of California should not expect a forest of rigs to appear along their coast as a result of OCS leasing, neither should they overestimate the visual impact of the relatively few offshore structures that may result from leasing. No OCS offshore structure would be erected within three miles of shore. The apparent size of a platform, of course, decreases as the distance between the platform and the observer increases. In actuality, according to the Final Environmental Impact Statement for OCS Sale 53 (Northern and Central California), along most of the California coast, platforms situated at the 3-mile line would be obscured from view by natural sea haze from 5 to 30 percent of the time, and obscurrence because of haze increases the further the platform is from shore.

Regardless of the comparatively small number of drilling operations--both absolutely and in relation to the size of the area involved--I sense from the hearings that those who value their view above all else may find it difficult, if not impossible, to be willing to accommodate any OCS program, unless, possibly, the tracts are located so far from shore that the deep water makes the tracts uneconomic.

B. Conclusions

In order to address public and congressional concerns that some of California's most sensitive ecological areas might be leased, I made it explicit that designated areas will be excluded from the next 5-year leasing program.

Beyond this, however, my extensive meetings in California did not identify any new types of OCS environmental concerns, other than those which the Department and MMS already have considered carefully. Nor did the meetings bring forth any information that shakes my conviction that -- except for the issue of scenic vistas -- we can deal effectively with all the environmental concerns through general regulations and lease stipulations.

Having considered the comments of literally hundreds of public officials and private citizens who took the time to speak with me during my trip, I see no reason that OCS development cannot be compatible with other uses of the ocean and coastal zone. I am also reminded that over the past 12 years, the

MMS has spent nearly $400 million on environmental studies. Results to date have found no major negative impacts on the environment resulting from exploratory activities in the OCS. Effects detected by researchers may be generally characterized as minor, short-term events with no lasting impact. It is not an all-or-nothing choice between offshore oil development and other uses of the ocean.

Some speakers left me with the strong impression that, no matter what we might do to accommodate environmental values and concerns, they simply opposed OCS leasing and drilling -- period. However, I was very pleased by the fact that an apparent majority of those expressing environmental concerns seemed to recognize that regulatory and consultation processes can enable us to protect the coastal and marine environment, while tapping the enormous hydrocarbon resources that are so vital both to California and to the Nation as a whole.

Although the matter of asthetics or scenic vistas is a legitimate concern, it cannot be dealt with readily except by prohibiting leasing. I am not persuaded that the issue of view should be allowed to override other, equally legitimate and highly compelling, concerns, such as: secure and reasonably priced energy for agriculture, industry and consumers, particularly the poor, the elderly and others on fixed incomes; jobs in California and throughout the United States; opportunities for small businesses and minorities; federal revenues and reduction of the trade deficit; and, above all, the security of the Nation.

As most of you know, I grew up and have lived most of my adult life in the State of Oregon. I have a keen appreciation of clean air, magnificent beaches, bountiful harvests from the sea and beautiful ocean vistas. Whether we consider them from the perspective of good health, recreation, economics or aesthetics, these are precious resources that bless all who are fortunate enough to live on the Pacific coast.

However, just because we properly place high values on these resources, we need not conclude that their protection is incompatible with the orderly development of OCS energy resources in accordance with the procedures specified in the OCSLAA.

It is my conclusion, Mr. Chairman, that, in light of the exclusions of areas heretofore described and on the basis of the record developed, there is no need from an environmental perspective to subject the California OCS to the blanket moratoria contemplated by the preliminary agreement.

V. ASSESSMENT OF PRELIMINARY AGREEMENT FROM PERSPECTIVE OF NATIONAL ENERGY POLICIES

A. Impact of Preliminary Agreement on Undiscovered Energy Resources Potentially Available to the Nation

(1) Quantity of Potential Resources

"Labels"

I believe it would be useful at this juncture to explain the chronology of events involved in our negotiations with the pro-moratoria members of the California delegation. This is because of certain statements reported in the media which, in my opinion, have mischaracterized those discussions.

First, some members of the delegation have asserted:

> "The tentative agreement permits leasing in 150 tracts. Of those, Interior specifically identified to congressional negotiators 117, or 78%, as 'high-interest,' because of their high resource potential. Of the rest, 26 are 'medium-interest.' Only seven tracts--less than 5%--are in areas where industry has not expressed interest."

In the event the same or similar statements are made to this Subcommittee, it is important for you to know that the critical numbers representing "high [company] interest" are wrong. The assertion of "high interest" utilizes labels to characterize information which is capable of being misleading unless understood in the context in which the information was provided to the delegation members.

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I mentioned earlier in my testimony the initial offer of the congressional negotiators. We explained to them our concern about their suggestion of so many tracts in deep water. This would make uneconomic the recovery of such resources, if any, as might exist. We displayed and later provided maps showing the various geologic basins offshore California and explained that not all basins were equal in potential resource value. We indicated how MMS would rank the different basins in priority of resource value and observed that, for example, of the various basins in the Northern and Central Planning Areas, the Eel River Basin (offshore Eureka in the North and the location of the vast majority of tracts "offered" by the Congressmen) had the lowest priority. This was because the Eel River Basin is believed to be only gas prone and not to contain the rich, oil-bearing source rocks, called the Monterey Formation, which characterize so much of the other interesting areas offshore.

Just as not all geologic basins are equal in potential resource value, neither are all tracts within any given basin. Therefore, based on seismic and other geologic information available to MMS, we identified with respect to each basin the areas within (and, in some instances, adjacent to) each basin which, from a geologic perspective, were of "high potential." By that, we explained, each of the identified areas, taken as a whole, was believed to have promising geologic characteristics.

I must emphasize at this point, as we did in our negotiations, that the identification of an area of "high [geologic] potential" in no way means that every tract within such area has the same resource potential as others; or, indeed, any resource potential at all. When one is focusing on areas, rather than on tracts, the area, taken as a whole, may have "high potential," but a great many of the tracts within the area may be barren of resource. For example, a given tract may contain a large "structure" (a geologic formation which is capable of trapping hydrocarbons produced by source rocks), whereas immediately adjacent tracts may contain only portions of a structure, or structures too small to be economic, or no structures at all. But the tract still may be in the "high potential" area.

Moreover, even if a given area has "high [geologic] potential," that does not mean that all, or even any significant part, of the potentially available resource is economically recoverable. For example, even though a given area appears to possess superlative potential from a geologic standpoint, it may lie in water so deep that it is either technically or economically infeasible to consider it seriously.

The oil and gas industry naturally has to take all these matters into account. The MMS, therefore, made inquiries of several different companies to ascertain identification of the areas offshore California in each of the separate geologic basins which were of most interest to them. The results of those conversations, coupled with prior expressions of company interest, were described on maps given to the Congressmen. The areas so identified by the companies were designated in the Northern and Central Planning Areas as being of "high company interest," and the areas in the Southern Planning Area were designated as being of either "high interest" or "medium interest."

The fact is that, of the 150 tracts identified by the preliminary agreement, only 73 (46 percent), not 117 (78 percent) as claimed, fell in areas regarded as being of "high interest" to the companies. But, even then, the argument misses the point.

This is because, as can be seen from the foregoing discussion, and as was explained to the Congressmen with whom we were negotiating, any given area on the map described as being of "high [geologic] potential" or of "high or medium [company] interest:"

- Was designated as such in relation to the basin to which it pertained;
- Did not indicate how such area compared to other basins or areas on the map in terms of geologic potential or economic recoverability (except only as there could be drawn a distinction between "high" or "medium" interest on the part of companies within a given basin in the Southern Planning Area); and, most importantly
- Did not indicate which of the tracts within any such area were potentially valuable and which were not.

An attempt has been made to make the point that a large (but erroneous) number of the 150 tracts identified by the preliminary agreement fell within the areas of "high interest." That assertion is irrelevant to the issue of how those tracts compare to others in terms of geologic potential or company interest. The argument is based on the premise that all tracts are equal in potential resource value and fails to note that just because a given tract was in an area labelled as being of "high interest" tells nothing about the potential of such tract in relation to other tracts in the same area or to other tracts in other areas or basins.

It is important for me to mention another matter which is a total mischaracterization of the negotiation process. I have seen news wire service statements that the 150 tracts which are the subject of the preliminary agreement were "selected by the Interior Department."

Mr. Chairman, neither MMS nor I "selected" or "offered" the 150 tracts which are the subject of the preliminary agreement.

Those tracts were selected by the members with whom I was negotiating.

Moreover, MMS, to my knowledge, did not make any resource estimate in regard to those 150 tracts at the time we were formulating the preliminary agreement.

It is perfectly proper to ask, "Why not?" The answer is simple. At the time Senator Wilson and Congressmen Lowery, Levine, and Panetta offered to delete only 150 tracts from the moratoria, they satisfied me they were not prepared to make further concessions. It was quite obvious to me that it really did not make any difference at that time what MMS might estimate in the way of resources for those tracts. In fact, as it turned out, there even was some uncertainty on the part of all concerned as to the precise location of all the tracts, and that was a matter which was not resolved finally until after the preliminary agreement was announced. A resource estimate was made, but only later.

Resource Data

While the MMS has in its possession substantial quantities of seismic and other geologic data, it had no occasion, prior to the negotiations, to translate that information, insofar as moratoria areas were concerned, into maps from which one might identify which specific tracts appeared to be more promising than others. A resource evaluation of any particular finite number of tracts requires utilizing a great deal of information and engaging in complex analysis generated by computer. The areas in question, after all, were in moratoria, and no leasing activity had been planned in them, much less in regard to the 150 specific tracts identified by the preliminary agreement.

Following announcement of the preliminary agreement, I requested MMS to provide me with a resource estimate for the areas which had been subject to blanket congressional moratoria and for the 150 tracts in question.

While I was in California, MMS informed me as follows:

- The 6,450 tracts in moratoria are estimated to contain between 1 and 3 billion barrels of oil equivalent (BOE).
- The 150 tracts identified by the preliminary agreement are estimated to contain only 50 to 200 million BOE, which is a mere 5 to 7 percent of the resources estimated in moratoria.

These estimates roughly correspond to the estimates industry provided during our town-hall meetings, although one estimate of the potential resources in the moratoria areas was as high as 5-1/2 billion BOE.

In light of that information, and taking into account other concerns which I shall mention presently, I then felt compelled to ask: do we have the wrong 150 tracts? It was obvious to me, by that time, that the preliminary agreement, if it became final, would free from moratoria only a minute portion of the potentially huge resources located offshore California.

It was for that reason that I later requested MMS to identify the best available 150 tracts in moratoria, disregarding, however, the areas I previously stated would not be included in the next 5-year leasing program and tracts as to which it was unlikely that the Department of Defense would remove its objections. Such effort, I believed, might shed some light on the question of how we might go about trying to reach a consensus on these contentious issues while, at the same time, freeing significant resources from moratoria.

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As of this date, Mr. Chairman, the "best available" 150 tracts have not been identified with finality, largely because of continuing discussions with the Department of Defense. However, MMS has informed me that, based on its tentative identifications of such tracts (again, subject to working out issues with the Defense Department in regard to some of those tracts), it appears they have resource potential in the range of 300 to 900 million BOE.

If that tentative estimate continues to hold, it would be further indication of the resource inadequacy of the 150 tracts identified by the preliminary agreement.

I should emphasize that we should be cautious when we are dealing with resource estimates. They are only that--estimates. It is my belief that we really cannot know for sure how much energy potential is locked up by the current moratoria and how much would be freed by the preliminary agreement until drilling actually occurs. Historically, some estimates have been too low (e.g., areas off Point Arguello, which now appear to contain many times the original estimates); others have been too high (e.g., the supposedly promising Mukluk well off Alaska's Prudhoe Bay apparently is dry).

Notwithstanding my awareness of the potential limitations of predrilling resource estimates, I cannot overlook the fact that Congress made plain in the OCS Lands Act Amendments of 1978 that the Secretary must develop an OCS program based on a consideration of, among other things, "existing information concerning the . . . geological . . . characteristics" of the various OCS areas. Predrilling estimates are based on vast amounts of seismic data, and, in reliance on such estimates, industry annually invests many millions of dollars in exploratory drilling. I have no doubt but that such estimates constitute the best available, existing information on the subject of potential resource.

The significance of these figures goes beyond the comparatively simple issue of gross amount of resources. The problem with the 150 tracts identified by the preliminary agreement is greater than the fact that, taken as a whole, they are believed to contain a comparatively small amount of resource. This is because, as was pointed out on several occasions during the second week of public meetings in California, a given hydrocarbon prospect simply will not be developed unless it contains a prospective amount of oil or gas which, in light of the enormous costs of development, makes development of the prospect economically sensible.

The projected amount of resource necessary to make a given prospect economic obviously will depend on a variety of factors, including, but not limited to, associated water depth, distance from shore, and other cost factors. Understandably, different companies put greater emphasis on certain factors than do others. However, the information developed was to the effect that a given prospect will not be developed unless it has resource potential of 25 million BOE in relatively shallow water to 100 million BOE in deep water. The most commonly expressed range was 75 to 80 million BOE.

Given the estimate that the 150 tracts contain only 50 to 200 million BOE, it would seem reasonable to conclude that: (i) if the resource is broadly spread out among the 150 tracts, none likely would be economic to develop; and (ii) even assuming concentration of the resource in a few of the tracts, only a minute portion of the 150 tracts would be developable. It is in light of this information that I can understand why: one company has informed me that "none of the 150 tracts is more than marginally prospective at best;" another company stated that its "explorationists' evaluation of these tracts is that none of them is well located to test any of the better prospects off California;" and another company concluded that "the tracts being offered have little value."

(2) Length of Time of Moratorium Provided by Preliminary Agreement

Insofar as resource development is concerned, the preliminary agreement also has been attacked because the remaining 6,310 tracts would be subjected to moratorium until the year 2000. The undisputed information furnished me is that it takes 8 to 15 years from the time a tract is leased until it begins production, assuming, of course, the often-uncertain presence of hydrocarbons. This necessarily means that, under the preliminary agreement, the Nation could not hope to tap, until well after the year 2000, the estimated 93 to 95 percent of the potentially huge resources now subjected to moratoria.

The length of time of the moratorium provided by the preliminary agreement in regard to the remaining 6,310 tracts also is relevant to the further provision of the preliminary agreement which would allow the drilling of a COST well in each of three basins off Central and Northern California. The purpose of these COST wells is to gather geologic data and information to attempt to remove some of the uncertainty surrounding the area's resource potential.

It is possible that data and information obtained from these COST wells would lead to the conclusion that we should be looking somewhere else. Under the preliminary agreement, however, there would be no opportunity to take advantage of this new information and explore other areas offshore California until after the year 2000. This circumstance raises the question as to whether industry would be willing to undertake this activity, with its attendant commitment of capital, under the proposed conditions. In similar vein, the 15-year moratorium contemplated by the preliminary agreement constitutes, we were told in California, a disincentive for firms to make an investment in acquiring geological and geophysical data that is necessary to make informed decisions regarding the energy potential offshore California that someday might be available to the Nation.

(3) National Energy Emergencies

I think it is important to note that many government and industry projections concerning U.S. domestic oil and gas production, consumption, and imports presuppose normal international supply conditions. However, as last month's successful Iraqi attack on Kharg Island demonstrates, it is a mistake to assume our Middle East oil supplies always will be safe from interruption.

That attack cannot help but remind us of the major oil supply disruptions and shortfalls in 1973 and in 1979-80 that resulted in large and enduring energy price increases. The Office of Technology Assessment (OTA) in its 1984 report, "U.S. Vulnerability to an Oil Import Curtailment," pointed out that, from 1978 through 1983, real oil prices increased 60 percent.

Those of us who negotiated the preliminary agreement were taken to task by a number of speakers for thinking there would be any benefit from the provisions which would release tracts from moratorium in the event of a national energy emergency. I observed that I was quite aware of the frailties of the provision, but that at least the pro-moratoria members of the California congressonal delegation with whom I had negotiated had acknowledged that there is a connection between OCS development and the Nation's ability to cope with an energy crisis. I realize that OCS resources cannot be developed and produced economically or efficiently under short-term or "on demand" conditions. OCS oil cannot be turned on in the manner one turns water on at the spigot. Therefore, even if we could agree on language to implement the energy emergency concept set forth in the preliminary agreement, it would be futile to contest the illusory nature of its benefits.

During my meeting with the California Coastal Commission, it became apparent that the energy emergency provision of the preliminary agreement was vulnerable to yet another problem. It has become plain that, to give any meaningful effect to the energy emergency provision, one would have to see to it that OCS development in the contemplated emergency was not impeded by compliance with time-consuming regulatory requirements so that the resource was available promptly. I am confident that, if the issue were pursued, somebody would point to the requirements mandated by the National Environmental Policy Act, the Endangered Species Act, and the Coastal Zone Management Act, which are time-consuming in large measure because of mandated procedures, rather than substance. It occurs to me that OCS development which was allowed to ignore wholly those requirements, albeit in a national emergency, would be questionable and, in all events, would be contrary to the OCS Lands Act Amendments of 1978 which make plain that the Congress desired, among other things, an "orderly energy resource development."

In addition to achieving national economic and energy security, Congress was concerned with (1) balancing orderly OCS development with protection of the human, marine, and coastal environments; (2) assuring that states and local governments directly affected by OCS activities are provided with the opportunity to participate in policy and planning decisions related to managing OCS resource; and (3) detailing standards and criteria for the Secretary of the Interior to follow in exercising his authority.

My concern, Mr. Chairman, is about the potentially adverse impacts upon those congressional policies if we wait until a national energy crisis to free resources from moratoria.

B. The Nation's Goal: Adequate Supply of Energy at Reasonable Cost

Apart from the question of the effect of the preliminary agreement's impact on the Nation's ability to cope with energy supply disruptions, its impact on the national goal of an adequate supply of energy at reasonable cost, as set forth in the National Energy Policy Plan, also should be considered.

According to the Energy Information Administration's Annual Energy Review 1984, in 1984 the United States consumed 73.73 quadrillion British Thermal Units (Btu) of energy. Oil and gas constituted about two-thirds of that amount. One issue is whether, given the importance of oil and gas to our total energy picture, domestic production will be able to contribute a sizeable portion of the Nation's needs, or whether we are going to become increasingly reliant on petroleum imports.

The Nation's production of oil and natural gas liquids peaked in 1970, and dry natural gas production peaked in 1973. The decline in oil production since 1970 reflects the depletion of older fields without the discovery of new reserves sufficient to raplace the oil produced. The decline has been cushioned by production from the giant Prudhoe Bay oil field. My information is that, if it were not for that field, U.S. production would have plummeted nearly 30 percent over the past decade instead of falling by only 5 percent. According to the Energy Information Administration, U.S. proved reserves of crude oil dropped nearly 13 percent from 1977 to 1983.

The U.S. Department of Energy has projected that total U.S. domestic oil production will decline 1.0 to 1.5 percent per year for the next 10 to 15 years. Total natural gas production is expected to drop also, but only after 1990.

In light of actual declines in reserves and the projected declines in domestic production, it is well to take a look at our import situation, both current and projected. According to the Energy Information Administration, net imports of crude oil and petroleum products accounted for about 30 percent of all consumption in 1984.

The Energy Information Administration's Annual Energy Outlook for 1984 (published January 1985) contains a range of projections for oil imports into the United States between now and 1995, as well as a set of sensitivity analyses that explore specific uncertainties about the factors that affect import levels. The range of gross oil import levels implied for 1995 by the basic scenario constructed in the Annual Energy Outlook is 5.2 to 11.7 millions of barrels per day, or between 32 percent and 61 percent of total consumption, with a "base case" projection (that assumes economic growth rates and world oil prices in mid-range) of 48 percent.

A sample of private forecasts of import dependency appears to confirm such projections. The Chevron Corporation "World Energy Outlook" (June 1985) projects that net imports will supply about 50 percent of total consumption by the year 2000. Conoco estimates (April 1984) that net imports will supply about 45 percent of the U.S. oil demand in the year 2000. Merril Lynch projects (January 1985) that gross imports will supply about 44 percent of domestic consumption in 1995, and that net oil imports will supply about 40 percent of domestic consumption.

Leasing and exploration of OCS oil and gas resources provides an important way of helping to slow the long-term decline of proved domestic hydrocarbon reserves. The hydrocarbons produced from the OCS in 1983 represented about 10 percent of domestic production of oil and about 24 percent of domestic natural gas production.

At every meeting held in California, I was told of the high oil and gas potential offshore California (which I previously have described in my testimony). Numerous persons told me that, in their opinion, the preliminary agreement failed to release from moratorium very much in the way of energy resource potential and that such circumstance was contrary to the Nation's repeatedly expressed goal of achieving energy independence.

From the data and analysis set forth above, I have to conclude that the resources potentially available under the preliminary agreement make an inadequate contribution to our Nation's energy requirements.

I have read recent press reports that express concerns that "pressure from the oil industry" allegedly has influenced my thinking about the preliminary agreement. Actually, I have received statements from many other groups in America who have their own reservations about the preliminary agreement regardless of the concerns of the oil industry. In the California town hall meetings, for example, I heard from a variety of public interest groups which normally do not center their focus on resource development or environmental issues--Black, Hispanic, and senior citizens organizations, the American Jewish Committee, Chambers of Commerce, labor unions, and recreational vehicle associations. Uniformly, these organizations opposed the preliminary agreement because it did not provide for enough OCS development.

My responsibility as Secretary of the Interior is to be concerned with national needs. The facts that have been raised in my consultations with the public and elected officials in recent weeks have raised very real and substantial doubt in my mind as to whether the preliminary agreement is in the national interest.

C. Other National Energy Policies

One interesting facet of public perception in California has to do with what the OCS Lands Act Amendments of 1978 called "equitable sharing of developmental benefits and environmental risks among the various regions." There were several speakers from areas heretofore exempt from OCS drilling who let me know that if, for example, I excluded the Big Sur area from the next 5-year program, they felt their area was entitled to equal treatment. Conversely, there were several speakers from communities in Southern California off which there currently is OCS development who felt it is not fair that their areas be singled out for OCS development, while other parts of California do not "share the burden." By the time we reached Los Angeles, Newport Beach, and Oceanside, even those persons (including Mayor Bradley) who expressed negative attitudes towards OCS drilling offshore all or parts of their areas stated that OCS leasing should be focused on those tracts which hold significant promise of oil or gas potential, rather than on those which have marginal or little interest from a resource standpoint.

Beyond consideration of whether one area of California "shares the burden" of OCS development relative to another in that state, there is a real question in the minds of many whether the State of California adequately shoulders its share of OCS leasing activity. I recently received a letter from members of the Texas and Louisiana congressional delegations which expressed disappointment with the preliminary agreement, stating:

> "Those of us who represent the states of Texas and Louisiana must remind you that over 90% of offshore drilling operations have been conducted off our shores. We have done our share, and will continue to open our energy reserves for development. It is time for other states to look beyond petty politics and consider what is best for the nation. America needs her offshore energy reserves."

Department of Energy statistics indicate that the State of California consumes about 10 percent of the petroleum consumed by the Nation as a whole. Moreover, because California produces only about two-thirds of the oil it consumes, it must import substantial quantities of crude and refined products. In light of these statistics, I can understand why the Texas and Louisiana delegations are calling for a more equitable sharing of benefits and risks, and why they find the preliminary agreement "lamentable."

VI. ASSESSMENT OF PRELIMINARY AGREEMENT FROM PERSPECTIVE OF NATIONAL ECONOMIC POLICY

A. Estimates of Impact on Economic Activity

(1) Tourist Business

At the eleven town-hall meetings held during July in California, several speakers expressed fear the OCS operations might damage the California coast's all-important tourist industry. They cited concerns about potential damage to beaches from oil spills, air pollution, and the presence of platforms on the horizon. Other speakers disagreed and pointed out that there was no evidence OCS operations inhibited tourism. Indeed, more than one speaker noted that, since Santa Barbara's 1969 oil spill, its tourist business has grown dramatically in spite of substantial state and federal offshore oil operations in the Santa Barbara Channel and significant natural oil seeps. The spokesman for the Ventura Visitors and Convention Bureau pointed to his county's substantially increased tourism and noted that the biggest damage suffered by the tourist industry in recent memory was caused by the unavailability of gasoline and its rapidly increasing prices during the oil crises in 1973 and in 1979-1980.

(2) Jobs and General Economic Activity

The positive impact of OCS development on the availability of jobs--and, conversely, the negative impact of moratoria on employment--forcefully were brought to my attention at the town-hall meetings in California. I repeatedly was informed of the statistic that four jobs are created onshore for every job created in offshore OCS operations. I also was told that only one out of every 10 OCS related jobs involves employment by an oil company.

General statistics aside, I was impressed with the tremendous outpouring of support for the OCS program on the part of the rank-and-file workers in the various OCS-related industries in Ventura. These persons, variously estimated at between 1,000 and 2,000 in number, could not understand why those of us who are concerned about unemployment in other contexts do not take into account the issue of jobs when decisions are made concerning the OCS program. A large number of these persons wore pink shirts and blouses to signify the pink slips they would receive if the current moratoria were extended. I was informed of numerous instances of layoffs in California which were attributed directly to the lack of OCS opportunities in that state.

I also was informed of missed opportunities, e.g., the environmental engineering company which had purchased land in Oceanside and expected to hire 1,200 employees, but cancelled its plans because of the drilling moratorium. Many of the persons attending the meeting cheered the statement that the plans had been cancelled.

Some of the most concerned speakers about jobs were representatives of Black and Hispanic groups. It was pointed out that Hispanics, for example, are the fastest growing minority group in California (6 percent of the population in 1970, 12 percent currently, and likely up to 20 percent within 10 years) and the 28 percent of them have incomes at or below the poverty level. These representatives of minority groups were not asking for handouts; they want jobs for their people.

And they uniformly opposed the preliminary agreement because of its obvious shrinking of employment opportunities.

I am aware of the study done in June 1985 for the American Petroleum Institute entitled, "Economic Implication of Accelerated Leasing and Development of Outer Continental Shelf Oil and Gas Resources." The report was prepared by Battelle, Pacific Northwest Laboratories. In general, this study concluded that accelerated development of the OCS has a substantial and positive impact on the U.S. economy. It notes that the positive impacts are felt over a wide range of industries and over every region of the country, although gains in employment are largest in the oil producing coastal areas and those inland areas where major supplier industries are located.

B. Minority Group Economics

At the town hall meetings, the representatives of minority groups and those representing senior citizens made a compelling point having to do with economics: For minorities and the elderly, an adequate supply of energy at reasonable cost is not a matter of convenience; "it is a matter of survival." These persons spoke of the comparatively larger amounts of their family budgets devoted to energy costs than are experienced by the population at large. They spoke of the harsh impacts of oil supply cutoffs upon their members, not only in terms of unaffordable, increased energy prices, but of the industrial layoffs which hit blue collar (often minority) workers first, and of having to switch from automobiles to public transportation because of increased gasoline costs, which in many instances meant up to four hours per day traveling to and from work in the Los Angeles area.

C. U.S. Balance of Payments

One of the explicit goals in the OCSLAA is to "maintain a favorable balance of payments in world trade."

While in California, I often heard concern that oil and petroleum product imports account for about $59 billion (or 48 percent) of the current $123 billion negative U.S. trade balance. Persons at the town-hall meetings who mentioned this fact observed that increased oil production from OCS could have a very positive effect on the Nation's balance of payments.

It is ironic that during the same week this testimony is being presented, members of Congress are preparing legislation designed to protect the U.S. from adverse affects of import competition. I respectfully suggest that U.S. jobs and businesses could be aided better by removing the congressionally imposed moratoria on California OCS production, and thereby place the Nation in a position where it can deal directly with the fact that energy is the biggest component of the trade deficit.

VII. CONCLUSION

My testimony has been lengthy because I believe that the issues raised by the threat of continued moratoria and by the apparent flaws in the preliminary agreement deserve careful, detailed attention.

Having considered this matter at length in light of the information which has been provided me -- and, now, all of us -- I do not see how it is possible to conclude that the preliminary agreement is a balanced one or in the national interest.

In direct response to concerns of California public officials and citizens, I have announced the exclusion of several sensitive areas from the forthcoming 5-year OCS program. As demonstrated by the record, the Department is dealing responsibly and effectively in its leasing program with all environmental concerns, except for the aesthetic consideration of scenic views. In these circumstances, I see no justification from an environmental standpoint for placing off-limits potentially highly productive resources in the California OCS by means of moratoria in appropriations bills, the preliminary agreement, or otherwise.

Doing so adds no necessary protections for the environment that cannot be obtained through the normal regulatory and consultative mechanisms contemplated by the Congress when it enacted the OCSLAA.

On the other hand, the cost to this Nation of the preliminary agreement could be enormous in terms of the adverse impacts upon national energy and economic goals. I simply cannot willingly acquiesce in a proposal by which this Nation would lock up until the turn of the century an estimated 93 to 95 percent of the 1 to 3 billion barrels of oil equivalent which are believed to be in the current moratoria areas of the federal OCS offshore California.

In view of declining domestic oil reserves and the prospect of petroleum imports climbing to as high as 50 percent of our consumption as we head into the next century, it is not rational to head away from our shared goal of energy independence by rigidly restricting our opportunities to explore and to develop the great resources with which this Nation has been blessed. And that includes those resources offshore California which belong to all America.

It will be recalled that I entered into the preliminary agreement in the belief that, in the circumstances, it might be more in the national interest to find out if we could justify a compromise so that, at long last, there could be assurance that at least some of the areas subjected to moratoria could be developed in accordance with the national goals established on a bipartisan basis by the Congress and President Carter. I regret that I must conclude that the only assurances provided by the preliminary agreement are that we unnecessarily would be prolonging the mischief of moratoria and, even then, would be subjected to legal attack on the part of those who either cannot tolerate any OCS development as a matter of apparent principle or who cannot tolerate it if it is not in somebody else's backyard.

I learned a great deal from listening to the people of California and to a good many of their public officials. I am glad I cared enough to go there. The whole purpose of the two provisions in the preliminary agreement or consulting with others and seeking their advice was to be able to learn.

One of the things I learned from at least six of the elected leaders in California was that, regardless of how much the Nation would give up by reason of the preliminary agreement, it still would not satisfy some. They would challenge us in court. That is not much of a bargain -- nor does it appear to be -- in the national interest.

I believe I now understand better why the Congress, in enacting the comprehensive legislation which governs the Nation's OCS, provided very substantial opportunity for state, local government, and private citizen participation, but expressly declined to give to local interests the power of veto over the location and timing of development of this valuable national resource.

And yet, in a Nation based on representative democracy, it is only proper that we pay attention to the political process. It is for that reason I remain convinced that it is very much in the national interest to try to reach a consensus on these issues. For if we do not, we well may continue to face calls for moratoria and for litigation that have resulted for two long in disruption of the expeditious and orderly OCS exploration and development which the Congress rightly has established as national policy.

I therefore urge all concerned -- the California delegation and Members of the Congress from other states, both those who favor OCS development and those wo do not -- to continue with me the process upon which we have embarked. Let us continue to pursue together a resolution by accommodation of these important issues.

We are much further along the road to achieving consensus today than we were when we first began to talk. Although we have not succeeded so far in identifying the best mechanism to resolve the problems, we should not give up.

Even if we eventually fail in our efforts, there still is plenty of time to have the confrontation over moratoria which last year's Conference Report assured would not be necessary if, as the record plainly demonstrates it has, the Department consulted and negotiated in a manner which provided proper consideration and protection of environmental values and Department of Defense needs. Those who may contend otherwise may not be aware of the record.

The time for confrontation is not now because we are not yet even in the second of the three stages Congress established for development of the forthcoming 5-year lease program. In all events, as a consequence of already existing laws and regulations, it would not be until the latter part of 1987, at the earliest, that we actually could lease any of the areas currently in dispute. In the interim, who of us is so uncaring that, by moratoria, we would perpetuate the business closures and layoffs of workers that already have occurred because of lack of faith that there ever can be a viable OCS program offshore California?

I remain unrelenting in my optimism that, with a commitment to the process of building a consensus, we can join together in doing what is right for America.

Appendix 1

After an extensive period of negotiations, the Secretary of the Interior and representative members of the California delegation have reached a preliminary agreement regarding protection and development on the California Outer Continental Shelf.

It is felt that a final agreement cannot be concluded until there is further consultation with State and local officials, as well as other interested parties.

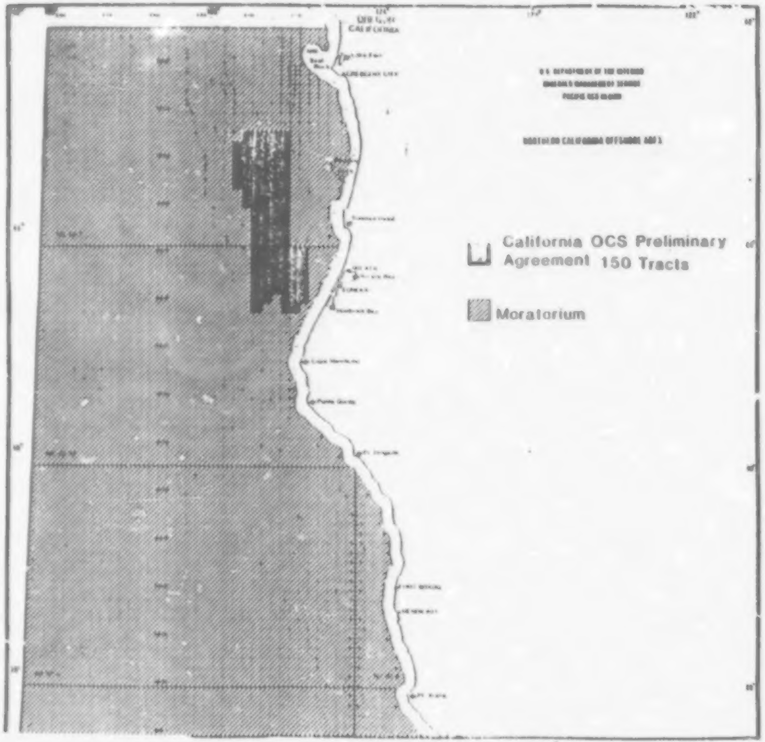
The general outlines of the preliminary agreement consist of the following:

1. 150 of 6,460 tracts contained within the present moratoria would be offered for leasing in accordance with environmental safeguards required under existing law.

2. The deleted areas would be protected until the year 2000 subject to a national energy emergency condition.

3. One COST well would be authorized in each of the following three basins--Pt. Arena, Bodega, and Santa Cruz--on the condition that it not be closer than 12 miles from the shoreline and these wells would be subject to standard environmental safeguards as required by existing law. A COST well is a well drilled for the purpose of obtaining stratigraphic information.

Pursuant to the above preliminary agreement, action on continuing the existing moratoria would be deferred until the consideration of the continuing resolution for fiscal year 1986 appropriations. At that time, subject to the advice of State and local government officials and concerned members of the public, the final agreement would be incorporated into that legislation.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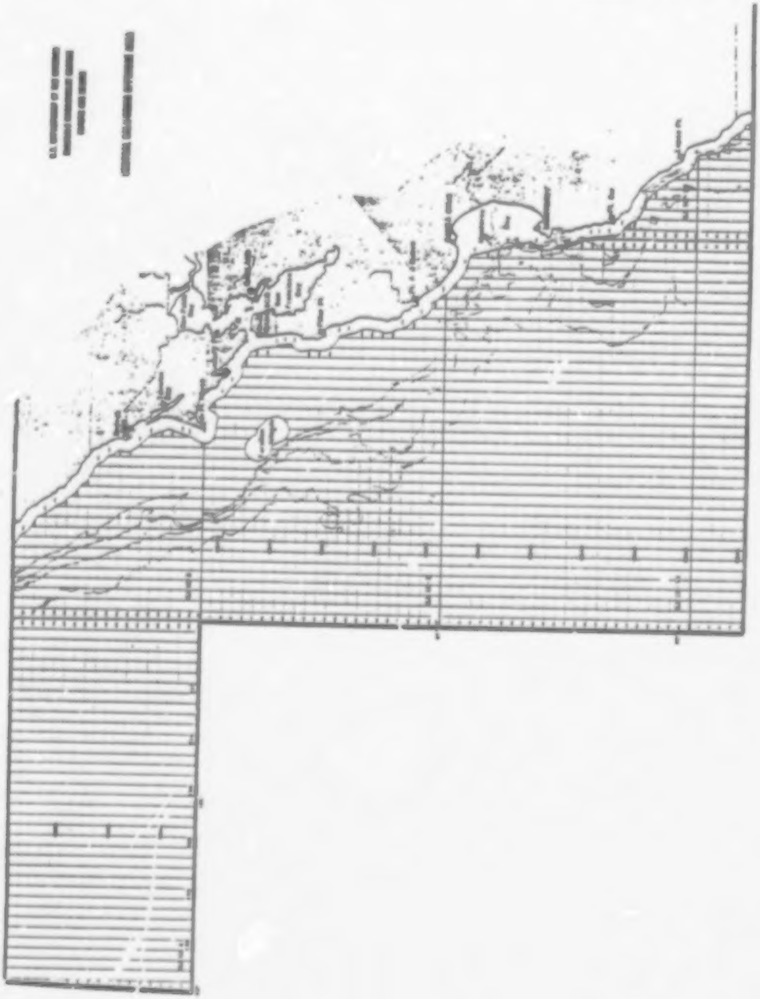
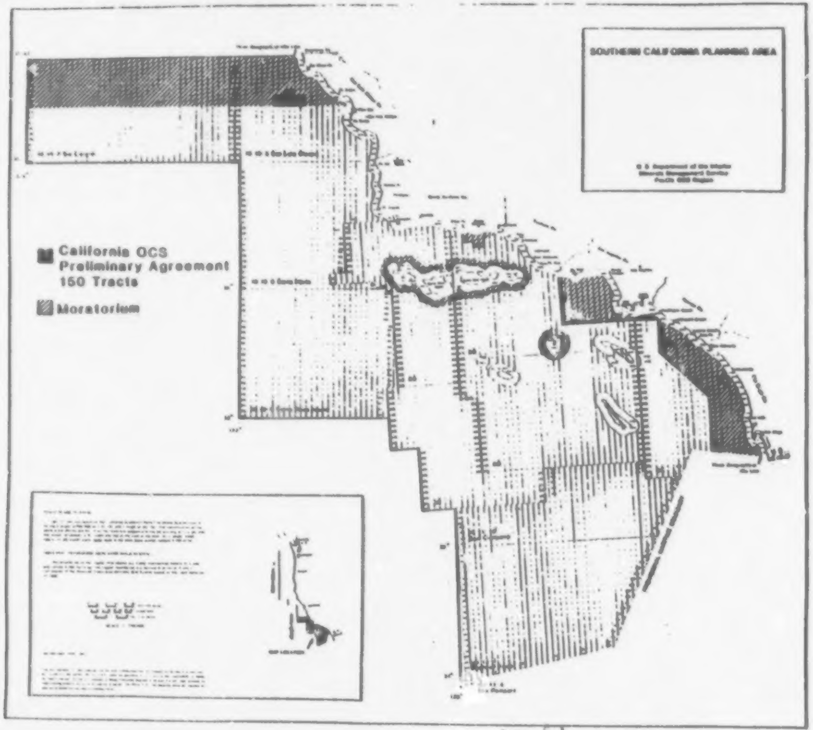
California OCS Preliminary Agreement 150 Tracts
▨ Moratorium

Appendix 2 con't




SOUTHERN CALIFORNIA PLANNING AREA
U.S. Department of the Interior
Minerals Management Service
Pacific OCS Region
▇ California OCS Preliminary Agreement 150 Tracts
▨ Moratorium

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United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, DC 20240

SEP 30 1985

Honorable Jack Brooks
Chairman, Committee on
  Government Operations
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

We are pleased to comply with Section 236 of the Legislative Reorganization Act of 1970, in response to the General Accounting Office (GAO) report entitled "Early Assessment of Interior's Area-Wide Program For Leasing Offshore Lands" (GAO/RCED-85-66), dated July 15, 1985.

The subject report contains two recommendations to the Secretary of the Interior. First, the GAO states that their report contains information regarding the effects of areawide leasing on competition and bid revenues that should be considered in developing the next 5-year leasing program. The GAO recommends "that the Secretary of the Interior consider the effects on competition and bid revenues in relation to anticipated benefits, and report his findings to the Congress."

We can assure the Congress that the recommended comparison will be made and reported to the Congress as part of our new 5-year OCS leasing program. We currently have a draft document entitled Appendix P: Analysis of Tract Selection and Areawide Leasing Approaches (an Appendix to the Secretarial Issue Document for the Proposed 5-year OCS Oil and Gas Leasing Program) which has been submitted for public comment. Based upon information which we receive from the public comments and new research and information generated internally, this draft document will be revised to fully address this first GAO recommendation.

GAO's second recommendation states "that in those cases where it has good or excellent supporting data to estimate tracts' values, Interior should use its independent estimates of tract value for assessing the adequacy of high bids." Although we will study GAO's recommendation further, we are concerned that: (1) GAO may not fully understand what the "good to excellent" data classification actually means; (2) this recommendation does not seem to be consistent with GAO's concern regarding the number of one and two bid tracts; and (3) this recommendation gives no weight whatever to market forces evident in the bidding results. Additionally, since the conclusion of GAO's review in December 1984 but prior to the issuance of the report, we have further refined the Department's bid adequacy procedures based upon experience with the program. Specifically, we no longer use the geometric average evaluation of the tract (GAEOT) for bid adequacy decisions regarding drainage and development tracts which receive only two valid bids. For those tracts and all viable one bid tracts, we rely solely upon the Department's independent estimates of tract value for assessing the adequacy of high bids. The record shows that we are willing to review the suggestions of the GAO and others and make appropriate adjustments. We will continue this practice.

Although we are certainly receptive to constructive suggestions for program improvements, suggestions must be based upon, and validated by, solid analyses and correct interpretations of the analyses. While the GAO report does provide useful information, there are also deficiencies. We anticipate that many of the deficiencies in the GAO report could have been corrected had the Department been afforded the opportunity to review and comment on a draft GAO report. However, GAO was instructed to deviate from its normal policy, which is to request Agency comments upon its draft report, and submit the report without Agency review and comment.

Looking at the issues raised in the GAO report from a broad perspective, I must question the degree of confidence which the GAO attributes to its modeling effort. Everyone acknowledges that bonus bids per acre have declined. That decline began in 1980, well before the implementation of an areawide leasing approach. Contributing to that decline were reductions in company projections of both short- and long-term energy prices; increases in exploration, development and production cost expectations as tracts have been leased in deeper waters, farther from shore, or in more hostile operating conditions; and the decline in geologic prospectiveness of tracts as better prospects become leased and those remaining are smaller, more subtle and more risky. How companies view these changes (and each clearly views them differently) is not really known by the Government or by GAO, and the range of estimates of these variables is likely to be so large as to swamp a refined analysis attempting to quantify other variables, even if done correctly.

The principal technique used in the report is to contrast bids with point estimates made by the MMS for bid acceptance reviews. These estimates, unreviewed by GAO, are made by MMS professionals using a substantial amount of professional judgement about economic and geologic matters subject to wide variations. Simply looking at the price expectation pattern, it is clear that the MMS professionals over the past several years systematically overestimated future prices compared to what they would project today. If companies, when they were bidding, had what today would be considered to be more realistic energy price assumptions, that one factor might throw off the entire analysis. Similarly, it has been suggested that industry may have been overoptimistic in its assessment of geological prospectiveness in the 1979-82 period and thus over bid during that period. That optimism has been brought down to earth with the long string of exploration failures offshore the Atlantic and Alaska coasts. In summary, it is difficult to make sweeping judgements about the causes of changes in bonus levels, and we should not ascribe too much confidence to attempts at precision when the basic data is subject to great variation.

Enclosure 1 details deficiencies in the GAO report uncovered by our economists, geologists, and other analysts. Deficiences have been organized into the following groups: general theoretical and modeling problems, data problems, instability of results, misinterpretation of results, failure to quantify benefits, and a group of miscellaneous comments. The sum total of these deficiencies leads one to the conclusion that many of GAO's results are misleading.

General theoretical and modeling problems include the failure by GAO to develop an explicit theoretical framework for the issue it seeks to analyze, the failure to recognize the highly nonlinear relationship between the real high bid and the number of bids received, and the propensity for wholesale inclusion of "dummy variables" which mask and confound the determination of individual relationships.

Data problems include the presence of censored data, errors in variables, and the systematic exclusion of data from the GAO analyses which should be in the analyses (for example the exclusion of all wildcat and proven tracts which receive three or more valid bids and the exclusion of tracts determined to be nonviable) and the inclusion of other data which properly should be excluded (such as data for tracts with high bids that were rejected). These data problems are expected to produce a major bias in GAO's analytical results.

Although the text of the GAO report states that the results of their analyses are stable, the analytical results presented in the report's Appendix I contradict this statement. Specifically, the results of three of their regressions indicate that "areawide leasing" had no effect upon the number of bids received and the level of the high bid.

The fourth general category of deficiencies in the GAO report concern misinterpretation of results and misconceptions which may occur because of statements contained in the report. We have detailed several examples of possible misinterpretations and misconceptions in our letter to Congressman Dingell dated August 27, 1985 (Enclosure 4). However, they are clearly of such paramount importance that they require repetition in the body of this letter.

While the three types of deficiencies discussed previously cast grave doubts about the accuracy of the GAO's conclusions, even if the GAO results did not lack credibility, the GAO's interpretation of these results would be incorrect. For example, the GAO report states that:

> the Federal Government received about $7 billion (or a discounted value of $5.4 billion in 1984 dollars) less than it would have received if the same acreage were leased under the tract selection program. (page iv of the subject GAO report)

From the first ten areawide sales, the U.S. Treasury received deposits of $8.8 billion in bonus revenues in 1983 and 1984. The slower pace of leasing which would have occurred under a tract selection program would have returned less than $4 billion in bonus revenues for the same period even if GAO's claim of higher per tract bonus for tract selection sales were correct. Thus, Government receipts under a tract selection program would have been over $4 billion less in 1983 and 1984, not $7 billion more as the GAO statement implies. In actuality, the GAO's claim is a speculation that more bonus revenue might have been achieved in the future on tracts that would not yet have been leased under the tract selection approach.

A second major misintepretation would be a linkage of GAO's claimed per tract bonus loss to the receipt of fair market value. GAO explicitly recognizes and states that:

> Assuring receipt of fair market value differs from maximizing up-front bid revenues from offshore leases. Under the tract-selection program, industry's high bids usually substantially exceeded Interior's estimates of tract value (MROV and DMROV) -- that is, its own estimate of fair market value at the time of the lease sale. In effect, industry paid a premium over Interior's estimates of tract value . . . (op. cit., page 33)

The GAO concludes that it was this "premium" that was reduced. Nowhere in the GAO report is it concluded or even implied that the GAO's claim regarding bonus reduction indicates that MMS has failed to assure receipt of fair maket value. In fact, GAO concludes that it is this "premium" above and beyond fair market value that was partially reduced. This partial reduction in the "premium" above fair market value was anticipated by the Department prior to the enactment of the program. In fact, it was also recognized and accepted by the United States Court of Appeals.

The United States Court of Appeals in California v. Watt, noting the anticipated reduction in such a "premium" but upholding the Government's approach, concluded:

> Lease prices could be held at higher levels by continuing to restrict the availability of leases . . . It would, however, be tantamount to exertion of monopoly power by the government. Losses to the economy would result just as they do from private monopolies.

The Court concluded that the decision to eschew a restrictive tract selection process in favor of broader access to prospects "was a reasonable one."

Furthermore, some valid statements made in the report can be easily misinterpreted. For example, GAO "noted that as of the end of fiscal year 1984, bids had comprised approximately $51 billion (67 percent) of the $76 billion in total direct revenues (bids, rents, and royalties but not taxes) received since offshore leasing began in 1954." This statement can be mistakenly interpreted as indicating that the majority (two-thirds) of Government revenues excluding taxes from a given tract will be due to the bonus. In fact, the bonus is only expected to comprise 25-50 percent of the present value of Government revenue. A major reason for the apparent inconsistency is that the GAO calculation of 67 percent does not include further production, royalties, or rents derived during the post-1984 period from tracts in production as of or before 1984 and also does not include any estimates of new production that will occur on any acreage under lease as of 1984.

The fifth grouping of deficiencies deals with the GAO report's lack of quantification of the benefits of areawide leasing. These benefits include the earlier receipt of bonuses, rents, royalties, and taxes that would be generated as well as expedited exploration and, hopefully, production.

The final grouping is a "catch all" category which contains a variety of factual corrections and amplifications required for clarity which we would have submitted had we been afforded the opportunity to comment on a draft report.

Enclosures 2 and 3 are two letters which the Department sent to the GAO expressing some of our concerns prior to the publication of the GAO report. Enclosure 4 is our response to a series of questions from Congressman Dingell concerning the GAO report.

Sincerely,

Wm D Bettenberg

Director

Enclosures (4)

cc: Honorable James T. Broyhill
Ranking Minority Member
Subcommittee on Oversight and Investigations

Honorable Morris K. Udall, Chairman
Committee on Interior and Insular Affairs

Honorable Peter W. Rodino, Jr., Chairman
Committee on the Judiciary

Honorable Walter B. Jones, Chairman
Committee on Merchant Marine and Fisheries

Honorable Sidney R. Yates, Chairman
Subcommittee on Interior and Related Agencies
Committee on Appropriations

Honorable James A. McClure, Chairman
Committee on Energy and
Natural Resources

Honorable Mike Lowry, Chairman
Subcommittee on Panama Canal/OCS

Honorable Jack Fields
Ranking Minority Member
Subcommittee on Panama Canal/OCS

Honorable Don Young
Ranking Minority Member
Committee on Interior
and Insular Affairs

Comments on U.S. General Accounting Office (GAO)
Report Entitled "Early Assessment of Interior's Area-Wide
Program for Leasing Offshore Lands"
(GAO/RCED-85-66, July 15, 1985)

General Theoretical and Modeling Problems Regarding GAO's Regression Results

The GAO's intent is to analyze the outcome of an auction for offshore leases. They wish to predict the high bid and the number of bidders on a tract with and without the policy changes associated with areawide leasing. GAO does not explain their underlying economic model except as intuitive expectations that some variables are to be included and are expected to affect the high bid and number of bids in a certain manner. This ad hoc approach to theoretical development makes it difficult to understand which variables are properly included in the regression model, which variables that were included may actually have no purpose in the model, which variables missing from the equation should actually have been included, and what some variables, especially the annual dummy variables, are expected or likely to measure.

The lack of a theoretical framework has clearly led to the specification of regression equations which do not exhibit a consistent rationale. For example, dummy variables are included in the regression model to indicate whether sliding scale or fixed net profit share bidding systems were used rather than a fixed royalty bidding system. The use of these alternative systems yields different outcomes regarding the distribution of economic rents paid to the Government in the form of cash bonus and contingency payments and therefore may be expected to affect the level of the high bid and/or the number of bids received. However, the royalty rate for the fixed royalty system also affects the distribution of economic rents to the Government in the same way, but is not included in the model. Additionally, the impact of the sixfold increase in the minimum bid level for Sale 71 and subsequent sales (from $25 to $150 per acre) is not accounted for in the model. Omission of variables which should be included in the model can lead to biased estimates for the coefficients of variables which are included in the model.

Bidding theory suggests that individual company bids may depend upon some of the general types of variables listed by the GAO (but the actual variables chosen may be poor proxies for what the GAO wishes to measure), although other variables are missing. It is well known from bidding theory, however, that the outcome of the auction depends upon the rank order of the bids. The distribution of the high bid observed, therefore, depends on the probability distribution of the maximum order statistic of individual bids from a sample size N, where N is the number of bidders. This maximum order statistic is highly nonlinear in N. The GAO's failure to recognize this theoretical constraint would be expected to yield an overestimate of the impact of changes in leasing policy upon aggregate bonus bid levels.

The GAO's analytical results presented in Table 3 on page 60 imply that GAO views the auction process as being sequential. This apparently has led the GAO to develop a recursive regression system where the outcome of the second equation (in the GAO's system this would be the RBPACRE equation) has no effect upon the first equation, i.e., the NOBIDS equation. The GAO proceeded to estimate these relationships using a technique known as ordinary least squares (OLS). If the model were truly recursive and the error terms of the first relationship were not expected to be correlated with the error terms of the second relationship, then econometric theory would indicate that an OLS approach would be warranted. However, there is good reason to believe that the results of the lease auction process the GAO attempts to analyze does not fulfill either condition. First, as mentioned previously. the GAO's lack of theoretical development has apparently led to exclusion of relevant variables from the GAO's regression equations and therefore the error terms are expected to be correlated. Secondly, those portions of bidding theory which state that the observed results of an auction are determined, in part, by bidders entering until average profit per bidder declines to some level (zero in the case of competitive markets) imply that the system is not recursive and should be estimated simultaneously. Accordingly, OLS parameter estimates would not be centered around their true values and the results of GAO's analyses would be biased. The fact that GAO saw fit to present additional results in Table 4 on page 61 which purport to show estimates of simultaneous equation systems indicates that the GAO may have been aware of the expected biases in their OLS results which form a major portion of their conclusions. Unfortunately, the "two stage least squares results" (TSL) developed by GAO and presented in Table 4 have no meaning due to a severe theoretical misunderstanding by GAO of that approach.

The estimated parameters of the structural equations in Table 4 have no meaning because both equations are underidentified and the estimates were apparently calculated by an invalid method. It is well known in econometric theory "that in cases of underidentification it is impossible to obtain estimates of some or all parameters . . . " (J. Johnston, *Econometric Methods*, 2nd Edition, page 349). The necessary condition for an equation to be identified is the "number of predetermined variables excluded from the equation must be at least as great as the number of endogenous variables included less one." (op. cit., page 359) The structural equations presented in Table 4 contain two endogenous variables, NOBIDS (number of bids) and RBPACRE (real bid per acre), but do not exclude any predetermined variables. Accordingly, the system is underidentified and it is *impossible* to estimate the structural parameters. Therefore, the numbers presented in Table 4 have no meaning and *must* have been calculated by an inappropriate method. Apparently, GAO estimated the reduced form equations for the endogenous variables NOBIDS and RBPACRE by including all predetermined variables in the reduced form regression. Then, it appears that GAO estimated the "structural parameters" by using the predicted values of the endogenous values and the actual values for only those predetermined variables not noted with the abbreviation "IV." This is totally inappropriate, however. If a variable is not in any of the structural equations, it cannot be a part of the reduced form equations. Thus, GAO's "two stage least square results" are simply wrong.

The final issue to be discussed in this section regarding general theoretical and modeling problems present in GAO's regression results concerns the wholesale inclusion of "dummy variables" (those which take on the value of zero if a given condition is not present and a value of one if the condition is present) without theoretical justification. Inclusion of such variables can mask and confound the determination of individual relationships. This is especially evident for the interrelationships between the "Area-Wide" dummy variable and the annual dummy variables for the years 1980-1984. The reason for including annual dummy variables is not clear. Apparently, it was done by the GAO to account for general macroeconomic changes that may have occurred year to year. If this is in fact the reason, the objective could have been handled directly by including such variables as Gross National Product or Gross Domestic Investment, future price expectations, or whatever the GAO had in mind. However, by using dummy variables instead, the mathematics of the model allow for a variety of valid interpretations of these annual dummy variables. For example, the coefficient of the annual dummy variable for 1984 can also be the marginal effect of 1984 areawide lease sales. GAO's equations are also extremely sensitive to the specification of these annual dummy variables, and in fact, if it weren't for two small tract selection sales which occurred in Alaska during 1983, five of the GAO alternatives shown in Table 3 could not have even been uniquely estimated since the combined effect of the 1983 and 1984 annual dummy variables would be exactly the same as that of the "Area-wide" dummy variable. This causes singularity and results in a situation where parameter estimates cannot be made using normal techniques.

The confounding effect of wholesale inclusion of dummy variables is easily shown. When we examine the results of the statistical analyses reported in Table 3 for GAO's base case specification, we calculate that the areawide sales in 1984 received an average of about 1.45 (1.97-0.52) more bids per tract than did the tract selection sales in 1979 and the areawide sales in 1983 received an average of about 1.07 (1.59-0.52) more bids per tract than did the sales in 1979. In fact, the conclusion to be drawn from that statistical analysis is that only two small tract selection sales in Alaska, held in 1983, received more bids per tract on average, after adjusting for other factors, than did the areawide sales of 1983 and 1984.

The equations where the GAO included the year in which the sales were held as a "dummy" variable in their statistical analyses (the base case and specifications 1, 2, 4, and 6) lead one to conclude that sales in 1983 and 1984, the only years in which areawide lease sales were held, had more bids per tract and generally higher bonuses per acre, after adjusting for the other factors in their analysis. The GAO fails to provide either a theoretical framework or even a rationale to explain or justify such a large shift. Those equations in which the GAO did not include the year the sale was held as a "dummy" variable (specifications 3 and 5) result in no statistically significant relationship between areawide leasing and the level of bonus bids or the number of bids received and, therefore, indicate that there was no bonus loss.

The conclusion to be drawn from the information presented in this section regarding the general theoretical and modeling problems regarding GAO's regression analyses is clear. The lack of development of explicit theoretical models of the lease auction process has led to major errors in both model specification and estimation methodology. The nature of the theoretical and modeling problems evident in GAO's analyses casts serious doubt on the validity of GAO's empirical results. The data problems which are manifest in GAO's analyses amplify our concern and are detailed in the next section.

Data Problems Regarding GAO's Regression Analyses

The data problems apparent in GAO's analyses are of three basic types: censored samples, errors in variables, and systematic exclusion of data. The censored sample problem arises because high bids are observed only for tracts receiving bids. Although this fact is obvious, it is not a trivial problem. The observed high bid and number of bids data are the result of a sample selection rule which leads to biased parameter estimates if not corrected. In a censored sample, the adjustment requires including an additional variable for the conditional probability of observing the data given a selection rule for submitting bids. GAO did not attempt this correction.

The errors in variables problem can be illustrated in relation to the stochastic estimate of a tract's value which is generated by MMS. The GAO truncates this value (at either $25 or $150 per acre) and uses it as a proxy for the value of a tract as perceived by the high bidder. Presumably, the untruncated estimate of tract value generated by the MMS is a random draw from the same distribution as that of the firm. However, a necessary condition for a firm to submit a bid is that the firm's estimate of value is positive. Often, estimates of tract value generated by MMS are negative and inconsistent with observed firm behavior. Under these circumstances it is not clear that the truncated MMS estimate of tract value is a consistent proxy for the firm's tract value. An alternative in line with the standard solution for errors in variables is to seek a better set of instruments for the expected value of the tract. Geologic characteristics, when supplemented by economic variables such as price and costs, may serve this purpose since they are necessarily nonnegative and obviously would be correlated with value. If the errors in variables problem is not corrected, as stated in Johnston (op. cit., page 281), "OLS estimates will not only be biased but will also be inconsistent."

The final data problem discussed in this section deals with the systematic exclusion from the GAO analyses of data which should be in the analyses and the inclusion of data which properly should be excluded. Tract value data for nonviable tracts and proven and wildcat tracts receiving three or more adjusted bids in areawide sales are not available for inclusion in GAO's analyses. This is a truncated sample problem which can lead to extremely biased parameter estimates especially when the form of the equation is misspecified. As shown in the previous section, the value of the high bid observed is a nonlinear function of the number of bids observed although the GAO assumed a linear relationship. By omitting proven and wildcat tracts receiving three or more adjusted bids in areawide sales from their improperly specified analyses, one would expect the GAO to overestimate the impact of the areawide variable in their specification of the number of bids equation. Similarly, by systematically omitting nonviable tracts (those judged by MMS to be of very low value, if any) GAO again opens the door to biased estimates since the majority of these marginal tracts were bid upon under the areawide system.

The GAO's analyses also include observations for several hundreds of tracts whose high bids were rejected. Since GAO uses the results of its analyses to measure "bonus reduction" if any, due to the leasing of tracts under the areawide program, it is inappropriate to include in their analyses tracts which were not leased. The "bonus reduction," as GAO claims, cannot occur if a tract is not leased. The inclusion of rejected tracts in GAO's analyses leads to overestimates of the effect of the areawide program upon bonus bid levels.

The conclusions to be drawn from this section on data problems apparent in GAO's analyses serve to amplify the concerns expressed previously in the section regarding theoretical and modeling problems regarding GAO's analyses. The problems are so great that serious consideration of GAO's empirical results appears unwarranted.

Instability of Results of GAO's Analyses

On page 21 of the subject GAO report, the following appears:

> The results of our regression analyses were stable and showed a significant negative relationship between area-wide leasing and the number of bids received for each tract. (See app. I.)

Even a cursory review of Table 3 on page 60 in Appendix I of the subject GAO report, however, indicates that the relationship is not stable. When GAO includes annual dummy variables for the years 1983 and 1984 in their specification, they conclude that the "Area-Wide" dummy variable shifts the number of bids in the range from -.474 to -.640 bids. However, when these annual dummy variables are omitted, GAO estimates a very small, nonsignificant effect ranging from -.028 to -.032 bids. This is certainly not what most observers would call stable. In addition, a similar pattern exists for the supposed effect of the "Area-Wide" dummy variable in the GAO's specification of the real high bid per acre equation. Any results should be considered highly speculative and unstable when minor changes in specification lead to major changes in estimates.

Misinterpretation of Results of and Misconceptions that May Arise from the GAO Report

Even if GAO's analyses were not in doubt, which they are, it would not be correct to conclude, as GAO did, that:

> . . . the Federal Government received about $7 billion (or a discounted value of $5.4 billion in 1984 dollars) less than it would have received if the same acreage were leased under the tract-selection program (page iv of the subject GAO report).

From the first ten areawide sales, the U.S. Treasury received deposits of $8.8 billion in bonus revenues in 1983 and 1984. The slower pace of leasing which would have occurred under a tract selection program would have returned less than $4 billion in bonus revenues for the same period even if GAO's claim of higher per tract bonuses for tract selection sales were believed to be correct. In actuality, the GAO's claim is a speculation that more bonus revenue might have been achieved in the future on tracts that would not yet have been leased under the tract selection approach. In addition to actually receiving billions more in bonus revenues during 1983 and 1984, the Government will also receive related royalty and tax payments sooner than would have been the case

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under a tract selection program. MMS's analyses indicate that earlier receipt of Government revenues would much more than offset any potential bonus reductions claimed by GAO.

A second major misinterpretation would be a linkage of GAO's claimed per tract bonus loss to the receipt of fair market value. GAO explicitly recognizes and states on page 33 of their report that:

> Assuring receipt of fair market value differs from maximizing up-front bid revenues from offshore leases. Under the tract-selection program, industry's high bids usually substantially exceeded Interior's estimates of tract value (MROV and DMROV)--that is, its own estimate of fair market value at the time of the lease sale. In effect, industry paid a premium over Interior's estimates of tract value . . .

The GAO concludes that it was this "premium" that was reduced. Nowhere in the GAO report is it concluded or even implied that the GAO's claim regarding bonus reduction indicates that MMS has failed to assure receipt of fair market value. In fact, GAO concludes that it is this "premium" above and beyond fair market value that was partially reduced. This partial reduction in the "premium" above fair market value was anticipated by the Department prior to the enactment of the program. In fact, it was also recognized and accepted by the United States Court of Appeals.

The United States Court of Appeals in California v. Watt, noting the anticipated reduction in this "premium" but upholding the Government's approach, concluded:

> Lease prices could be held at higher levels by continuing to restrict the availability of leases . . . It would, however, be tantamount to exertion of monopoly power by the Government. Losses to the economy would result just as they do from private monopolies.

The Court concluded that the decision to eschew a restrictive tract selection process in favor of broader access to prospects "was a reasonable one."

A third major misconception arises because of misinterpretation of GAO's valid statement that GAO:

> . . . noted that as of the end of Fiscal Year 1984, bids had comprised approximately $51 billion (67 percent) of the $76 billion in total direct revenues (bids, rents, and royalties but not taxes) received since offshore leasing began in 1954.

This statement can mistakenly be interpreted as indicating that the majority (two-thirds) of Government revenues, excluding taxes, from a given tract will be due to the bonus. In fact, the bonus is only expected to comprise 25-50 percent of the present value of Government revenue. A recent study conducted by Minerals Management Service (MMS) staff concludes that for tracts leased through Fiscal Year 1983 in California and the Gulf of Mexico, bonuses (expressed in 1984 dollars) comprised 48 percent of the present value of

Government revenues excluding taxes and 35 percent of the present value of Government revenues if taxes are also considered. A major reason for the apparent inconsistency is that the GAO calculation of 67 percent does not include further production, royalties, or rents derived during the post 1984 period from tracts in production as of or before 1984, and also does not include any estimates of new production royalties that will occur on any acreage under lease as of 1984, acreage for which bonuses have been paid but royalties have yet to be paid. These GAO assumptions are invalid if used to infer that two-thirds of the Government revenue will be from bonuses. If no more leases were let, billions of dollars in royalty and rental income would continue to flow into the Treasury each year. We anticipate almost $4 billion in Fiscal Year 1985 alone and similar payments would continue into the future.

Studies have also indicated that the "taxpayer" is not getting "ripped off" by owners of OCS leases. The recent MMS study mentioned previously indicated that the Government's share of total gross value of OCS production, excluding taxes, was 32 percent. If taxes are included, this percentage may increase to 45 percent. Additionally, two 1980 studies conducted by Professors Mead and Sorenson, University of California, at Santa Barbara, concluded that the internal rates of return, both before and after tax, for OCS leases were below those for manufacturing industries, in general.

GAO Report Largely Excludes Measures of the Benefits of Areawide Leasing

The MMS estimates of the gains from areawide OCS lease sales are reported in the draft of Appendix P to the 5-year OCS Leasing Program which was circulated to the Governors and other interested parties for review on July 17, 1985. The Treasury will gain from areawide sales because bonuses, rents, royalties and additional taxes resulting from the leasing that occurs will be received sooner. Earlier receipt of revenues reduces the interest which the Treasury pays on the national debt. The estimates in Appendix P (see pages P-25 through P-29) focus upon the Central and Western Gulf of Mexico areas. The Treasury gained from earlier receipt of the bonuses from the 1,029 leases issued in 1983 and 814 leases issued in 1984 in areawide sales. Assuming constant oil and gas price expectations, these bonuses for these tracts would have been received over the 1983-1991 period under the slower leasing rate of the tract selection process. The Treasury gain in 1983 dollars from earlier receipt of bonuses for these 1,843 leases issued in 1983 and 1984 is estimated to be $1 billion. Given the decline in oil price expectations since 1983, the bonuses that would have been realized during 1983-1991 under a tract selection program might have been less, not more, than those received in 1983 and 1984.

The Treasury will gain in a similar fashion by earlier receipt of other revenues from these 1,843 tracts leased in 1983-1984. MMS has estimated that, on average, other Government receipts are 1 to 3 times the bonus for a Gulf of Mexico tract. (The historical ratio of total bonuses to total lease revenues cited by the GAO--67 percent--is misleading because: (1) it excludes royalties yet to be collected on many tracts for which bonuses have been received, and (2) it excludes additional taxes.) If the other government revenues are estimated to average 1.5 times the bonuses received for the 1,843 tracts, the Treasury gains from earlier receipts will total $3.6 billion in present value terms. It is also important to emphasize that it is not the other revenues themselves that offset any decline that may have occurred in bonuses, but it is the reduced interest payments resulting from earlier receipt of all revenues that offset any potential decline in bonuses. Such gains are of sufficient importance to warrant substantial cash management efforts by Treasury and other Government agencies.

In addition to gains from earlier receipt of revenues, the Treasury would recapture some of the GAO's claimed "bonus loss" by increased taxes. To the extent that bonuses are lower on the leases issued, the write-offs against future tax payments will be lower, potentially giving higher tax receipts.

Furthermore, leasing and searching for oil and gas is a sequential process in which new prospects are identified each year using the results of exploration from previous years. Tract selection leasing would have severely limited the rate at which industry searched through the many prospects made attractive by the price increases of the 1970's. Areawide leasing in 1983 and 1984 has made it possible to advance the exploration process in the Gulf of Mexico by as much as 9 years. Further advances will be realized as long as the accelerated leasing and exploration rates exceed those that would have resulted from tract selection leasing. These advances in the timing of resource development yield gains similar to those accruing to the Treasury from earlier receipt of revenues. It is difficult to specify with much certainty the economic conditions and resource development over the next four decades in the Gulf of Mexico. However, under reasonable assumptions, it appears that advances in development under accelerated leasing could yield additional gains of $8 to $12 billion in the present value of oil and gas resources yet to be leased in the Gulf of Mexico. Thus, rather than perhaps "losing" revenues, the Treasury may gain as much as $16 billion from accelerated leasing. Benefits can also be measured by oil and gas discoveries.

The areawide lease sales held in 1983 alone have already led as of April 1, 1985, to the discovery of 61 new fields. This is virtually as many as the 62 new fields that have been discovered for tracts leased in the prior three years of tract selection leasing. The 61 areawide discoveries have been made in only 18 months of exploration. The prior three years of tract selection sales have had additional years for exploration activity to occur. Many more tracts leased under the areawide program have been drilled, and the drilling has been at rates comparable to those which occurred under the slower-paced tract selection approach.

Additionally, although GAO argues that the effects of areawide leasing upon production levels, oil imports, prices, and employment cannot be presently estimated, we are currently reviewing the recently released report on accelerated leasing jointly prepared by Battelle Pacific Northwest Laboratories and Data Resources, Incorporated (DRI) which makes such estimates. This report concludes that a continuous accelerated leasing program of 7.4 million acres per year compared to the tract selection program rate would double oil and natural gas production; yield an increase of $6 billion in bonus and royalty payments in 1995; realize gains in employment and output in nearly 400 industries throughout the country (a total of 1 million jobs and a 1 percent in GNP in 1995); and reduce the Federal deficit by more than $41 billion (25 percent) by the year 1995.

Miscellaneous Comments on the GAO Report

P. 2, para. 1, line 13 - Change "estimated" to "estimates of." The high bid may be compared to any and all of the three parameters: MROV, DMROV, or GAEOT.

P. 11, para. 2, line 1 - Forecasting is difficult not only because of the uncertainties associated with finding oil and gas, but once commercial resources are found, fluctuations in resource prices will determine how much resource is ultimately recoverable and this could change over time.

P. 19, para. 3 - GAO failed to note that the number of bids per tract had already started to decline in tract selection sales prior to the commencement of areawide leasing. Moreover, Pacific Sale 73 was very limited in scope and as such resembled a tract selection sale, not an areawide sale.

P. 22, para. 1 - GAO's regression analyses showed that the areawide program had no significant effect on the percentage of small or large companies submitting high bids. However, GAO's results depend in part on their expanded definition of large companies. If GAO limited its definition to those companies who are restricted from bidding jointly in OCS lease sales, then GAO's results would have shown a marked increase in the number of tracts leased to small companies in areawide sales versus tract selection sales.

P. 22, para. 3 - We have problems with GAO's regression results and, therefore, question their findings that DOI's shift to the areawide program was responsible for an average reduction in bids of $3.1 million per tract leased. The regression equations used by GAO left between 60 and 90 percent of the variation unexplained as measured by the adjusted R-squared.

P. 24, top of page - The discount rate of 6.5 percent used by GAO appears low.

P. 24, para. 3 - The 67 percent figure for bonus bids received as a percent of total revenues is misleading because the majority of leases still have at least 10 more years of producible life left. It also does not take into consideration tax revenues.

P. 26, para. 1 - Although Texas attributed the decline in bids per tract to the shift in areawide leasing, as the table on page 20 shows, the number of bids per tract has been declining since 1980.

P. 28, para. 3 and p. 29, para. 1 - Under the tract selection program, Interior developed two independent estimates of value for each offered tract (MROV and DMROV). The MROV is the Government's estimated value of a given tract at the time of the lease sale. The DMROV represents the discounted measure of the MROV at the time of reoffering if the high bid is rejected, with further adjustments for delayed receipt of royalties and net losses due to drainage. Under the tract selection program Interior developed a

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third estimate using actual lease market data. It was called the average evaluation of the tract (AEOT). The AEOT represents the arithmetic mean of all the bids on a tract and the MROV. In October 1982, in Sale 71, the geometric mean of all nonanomalous bids on a tract and the MROV (GAEOT) was substituted for the AEOT. Although the GAEOT was not used prior to October 1982, the OCS Regional Directors were given discretionary authority in a memorandum dated August 19, 1977, to use the GAEOT in lieu of the AEOT if they concluded that the distribution of the evaluation was skewed to the right and the number of bids on the tract exceeded the average number of bids for that type of tract.

P. 30, para. 3 - Change "anomalously low" to "anomalous." On July 13, 1984, the definition of an anomalous bid was expanded. In cases where the same company, parent, and/or subsidiary participated alone or jointly in more than one bid on the same tract, all but the highest of such bids by the entity are considered invalid in computing the number of bids on the tract and the average number of bids parameter in Phase 1. In addition, in those cases in Phase 2 in which the GAEOT is used, it is excluded from the computation of the average in the bid acceptance process.

P. 33, para. 1 - In a January 7, 1982, memorandum to Interior's Under Secretary, Assistant Secretary J. Robinson West stated that the charge might be made that the areawide program would spread the bids out among the many tracts and the competition on each tract would no longer be adequate to assure receipt of fair market value by the Government. This and other concerns led to raising the minimum acceptable bid from $25 to $150 per acre (which was implemented March 12, 1982) and the inclusion of certain bid adequacy criteria to guard against the acceptance of less than appropriate bid amounts on individual tracts where competition was weak. Additionally, the U.S. Court of Appeals for the District of Columbia was asked to determine whether the Secretary would meet the statutory requirement "to assure receipt of fair market value for the lands leased and the rights conveyed" by OCS oil and gas leases, in light of the fact that the "accelerated rate of leasing might ordinarily result in less intense competition and lower bids for some tracts." (See California v. Watt, 712 F.2d at 584, U.S. Court of Appeals, District of Columbia Circuit, July 5, 1983.) The court dismissed the charge and ruled that, despite the lower bids expected, "the proposed evaluation process, coupled with the Secretary's reasonable reliance on the integrity of the competitive bid process, is sufficient to assure that the fair market value is received." (See 712 F.2d at 608.)

By the very fact that tract offerings were very limited under the tract selection process, industry may have paid a premium for the leased tracts. With larger offerings such a premium per tract could be expected to decrease. In fact, GAO concludes "industry paid a premium over Interior's estimates of tract value" under the restricted tract selection program and under the areawide leasing program "industry has been less willing to pay such a large premium for tracts being leased."

P. 34 - GAO states that Interior's own estimate of tract value provides "more assurance of receiving fair market value" than "relying solely on the receipt of three or more bids" per tract criterion. The OCS fair market value task force found that application of this criterion focuses further detailed evaluation efforts on those tracts which received less than the average level of competition in a sale and less than the historical level of recorded competition (three bids). Good or excellent geological and geophysical data may be available for a tract; however, this does not mean that there is excellent economic or engineering data available. Analysis of historical data indicates that even if Interior had done a detailed evaluation, use of the GAEOT (and AEOT) accepts virtually all high bids on tracts receiving at least three bids except in unusual cases. Therefore, an evaluation is redundant.

P. 35, para. 1 - MMS's guidelines encourage the development of many of the critical evaluation parameters before the sale, particularly with regard to drainage and development tracts. On wildcat and proven tracts there is time after a sale for more mapping and analysis.

P. 41 and 42 - GAO recommends that two of MMS's bid adequacy criteria, the three or more bid rule and the GAEOT, not be used in place of MMS's estimate of tract value when there is good or excellent data. GAO also states that Interior's own estimate of tract value provides "more assurance of receiving fair market value" than "relying solely on the receipt of three or more bids" per tract criterion. The OCS fair market value task force found that application of this criterion focuses further detailed evaluation efforts on those tracts which received less than the average level of competition in a sale and less than the historical level of recorded competition (three bids). Moreover, we have no reason to believe that the three bid rule does not continue to operate as an effective market measure to assure receipt of fair market value.

It should also be noted that the three bid and the average number of bids rules are applied after screening for anomalous bids. Screening for anomalous bids filters out unusually low bids and more than one bid by the same company in order to prevent the situation of bidders attempting to beat the number of bids rule. GAO pointed out this problem in their report; however, MMS had already recognized it and the bid adequacy procedures were modified accordingly. In addition, the Regional Directors were given discretionary authority to identify and document unusual bidding patterns and to conduct detailed evaluation of tracts on which such patterns existed.

The GAEOT's use in the bid adequacy process has evolved since it was initially introduced in 1977. The most recent change in the bid adequacy rules, in which the GAEOT is only applied to wildcat and proven tracts in Phase 2 receiving two adjusted bids and to all tracts receiving three or more adjusted bids, reduces the anomalous situations to which GAO refers. The change places more reliance on the MMS tract value estimates on two bid drainage and development tracts on which MMS has excellent data (note that excellent data refers only to geological and geophysical data on a tract; it does not also mean that there is excellent economic or engineering data) and in which the likelihood of asymmetric information may influence the bid.

Appendix 1 - Interpreting and believing the results of regression analysis depends on three factors. These are:

1. The development of a theoretical model to guide the choice of variables and expectations regarding the sign and magnitude of coefficients.

2. The choice of a statistical estimator that is consistent with the restrictions of the theory and of the process that generated the data.

3. The interpretation and diagnostics of the actual estimates in the context of the theoretical model.

The regression results reported by GAO contain weaknesses in each category. Many of the problems are driven by GAO's lack of an explicit economic model describing the process which generated the data.

ENCLOSURE I

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, D.C. 20240

In Reply Refer To:
LMS-Mail Stop 610

MAY 2 1985

Mr. J. Dexter Peach, Director
Resources, Community and
Economic Development Division
General Accounting Office
Washington, D.C. 20548

Dear Dexter:

On March 21, 1985, Secretary Hodel announced a draft proposed 5-year Outer Continental Shelf Oil and Gas Leasing Program for mid-1986 through mid-1991. As you are currently preparing a "Review of Interior's Bid Acceptance Procedures and Areawide Lease Offerings in Recent Offshore Sales" (project code 005587), I would like to bring to your attention some analyses which have been released with that draft proposed program. Although you may find all of the analyses of interest, there are three appendices which are particularly relevant to your review. Appendix F, Economic Considerations on the 5-year OCS Leasing Program, discusses the economic benefits of leasing and provides estimates of costs and benefits for the various planning areas of the OCS. Appendix K, Fair Market Value, discusses the legal requirement for and the judicial interpretations of fair market value along with our current procedures. Appendix P, Analysis of Tract Selection and Areawide Leasing Approaches, discusses the pace of OCS leasing and the effects on investment, revenue, and fair market value.

We will update these analyses, after public review and comment, before the Secretary makes a decision on a proposed program later this year. We are also currently in the process of preparing other analyses regarding the results of recent lease sales. As I understand it, you are preparing a multivariate regression analysis in an attempt to isolate the effect of certain variables on bid levels. Since you have indicated we will not be allowed to formally comment on your draft report, I would like to make some suggestions which may avoid technical analytical disagreements similar to those which I am advised have occurred in the past and allow the focus to be placed on the policy issues.

Our own preliminary evaluation indicates that the results of the statistical analysis of bid levels will vary substantially depending upon the form of the equation used, the specification of the independent variables, and the set of tracts employed. Thus, we hope that inferences which are drawn from such work reflect the substantial lack of precision inherent in the results of regression analysis for measuring the effects of policy changes.

Nevertheless, it is our understanding that your study will not be limited to the possible effects of past areawide leasing policies on bonus bid levels, but would consider all Government revenues, including royalties and taxes. This is rather important, since the cash bonus has historically been estimated to be between 25-50 percent of total Government receipts, depending on the area and time required for development. Since areawide leasing

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results in the earlier sale, exploration, and development of many tracts, this effect alone causes a significant increase in the present value of all government receipts on such tracts. Also, if the average bonus bid were to be reduced (but received earlier in many cases), then discounted tax receipts may be increased by about 20 percent of the bonus reduction due to a smaller bonus tax write-off. Hence we trust that your study will balance these elements of government revenues against possible declines in the bids before drawing conclusions about the size of potential revenue losses.

Our work shows (Appendices F & P) that areawide leasing leads to an increase in national income by making oil and gas ventures available in the competitive marketplace in a timely manner. Companies are not simply acquiring tracts to place in their inventory; exploration activities are up substantially following the first areawide sales. We also observe a significant increase in the willingness of companies to acquire tracts in more risky and higher cost environments of the Gulf of Mexico since the advent of areawide leasing. We think that this relationship is significant, and believe that it could lead to a greater level of activity in adjacent areas. While it is difficult to quantify the benefits of such incentives provided by areawide leasing, we feel they may be of more lasting consequence to the Nation's energy well-being than any potential short-term effects on bonus bids.

I encourage you to review the Department's analysis prepared for the draft proposed program and incorporate it into your report where appropriate.

Sincerely,

(SGD) WM. D. BETTENBERG

Director

Enclosure

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INSERT: PAGE 101

THE UNDER SECRETARY OF THE INTERIOR
WASHINGTON, D.C. 20240

JUN 17 1985

Honorable Charles A. Bowsher
Comptroller General of the
  United States
General Accounting Office
Washington, D.C. 20548

Dear Mr. Bowsher:

On May 23, 1985, members of your staff conducted an exit conference with Minerals Management Service officials regarding your "Review of Interior's Bid Acceptance Procedures and Areawide Lease Offerings in Recent Offshore Lease Sales." The Director's report on the exit conference (see enclosure) raises several concerns about GAO's apparent conclusions. Given the importance of the Offshore Leasing Program to our national energy position and the potential gravity of the concerns expressed by MMS, I respectfully request a meeting with you and your staff prior to the publication of this report in order to discuss these issues.

Sincerely,

sgd Ann McLaughlin

Ann McLaughlin

Enclosure

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, DC 20240

MAY 31 1985

In Reply Refer To:
Mail Stop 622

Memorandum

To: Assistant Secretary - Land and Minerals Management

From: Director, Minerals Management Service Wm D Bettenberg

Subject: General Accounting Office (GAO) Exit Conference Regarding Areawide Leasing

On May 23, 1985, members of my staff and I held an exit conference with GAO staff regarding their "Review of Interior's Bid Acceptance Procedures and Areawide Lease Offerings in Recent Offshore Sales." Their original review objectives were: 1) Determine if new procedures comply with provisions of the OCS Lands Act, as amended; 2) Determine if Interior has complied with its new procedures; 3) Identify any cost reductions to Interior; and 4) Determine the impact of areawide lease offerings on Government revenue, sales competition, oil and gas development, and conservation of energy resources.

Based on our meeting with GAO, we expect the report to focus on the fourth point and to contain the following conclusions and findings:

- While areawide leasing has resulted in tracts being leased and explored more rapidly, bonus bids and competition are lower.
- A dollar figure (unspecified at the meeting) for "bonus loss due to areawide leasing" will be presented; however, a dollar figure for revenue gains due to faster receipt of Government revenues will not be presented.
- More time is needed before the effects of areawide leasing on employment, prices, production, and imports can be determined.
- The difference between maximizing Government revenue and achieving fair market value will be acknowledged. The report is expected to state that GAO's conclusion regarding lower bonus bids does not necessarily mean that the Government has not obtained fair market value for areawide lease sales.
- Changes made to the bid adequacy procedures during 1984 are improvements. However, GAO may suggest that the Government place sole reliance on its mean range of values (MROV) and its delayed

mean range of values (DMROV) for bid acceptance decisions for tracts for which MMS has "good or excellent" data. Current procedures (which involve the use of market data) should be maintained for other tracts.

- Based upon the results of a questionnaire sent to companies, States, and environmental and fishery groups, the streamlined presale planning process was generally favorably accepted, Interior's planning documents are accurate and complete, and the parties affected generally have adequate time to participate in the presale planning process.

We understand that GAO's analytical approach will be presented as an appendix to the report, but we were not provided with a copy of the analyses during the exit conference.

During our discussion with GAO, we raised several concerns which they may not have taken into account in their analyses. Our concerns include the analytical approach, treatment of competition and bonus bid levels, the apparent lack of quantification of the many positive aspects of the program (especially when a potentially negative aspect is being quantified), and the possibility that any unexplained decline in bonuses may be attributable to factors other than the areawide approach.

In particular, we have concerns that problems apparent in GAO's preliminary analyses may not have been corrected. GAO apparently will base its expected conclusion that bonus bids and competition are lower due to the areawide program upon the results of their regression analyses. The regression technique is most useful when applied to homogeneous items or items whose essential differences can be controlled statistically. It is not clear that this can or has been successfully accomplished for bonus bid and competition levels for OCS tracts which are inherently dissimilar. GAO apparently has not disaggregated their analysis by types of tracts (wildcat, drainage, etc.) or tested their conclusion over time by aggregating time periods differently. This could mask the effect of other possible explanatory variables. For example, many studies and articles published prior to the advent of the areawide program presented evidence that companies had been too aggressive and optimistic in their bidding patterns. This, when combined with many unsuccessful exploration results (which are the "proof of the pudding"), may have led to a revision in their bidding practices prior to the advent of the areawide program. Additionally, the amounts chosen by GAO for "known" variables (lower oil and gas price expectations, lower resource estimates due to the "picked over" effect of multiple sales in an area, and higher costs in undeveloped frontier areas, deeper water or greater distance from shore) may not reflect the magnitude or ranges of such variables as seen by industry when their bids were formulated.

GAO's apparent conclusion regarding bonus bid and competition levels for tracts leased under the areawide program has a logical paradox. For the majority of the tracts leased under the areawide program's second and later sales in a planning area, competition and bonus bids have clearly increased for those particular tracts since most had been previously offered and had received no bids. Additionally, since GAO's apparent focus is on what they perceive as a decrease in competition, their tentative suggestion to consider discontinuing the use of market data for certain tracts which receive competition appears contradictory. MMS currently places sole reliance on its independent evaluations for bids where there is no observed competition. It is not clear that GAO's tentative suggestion to consider revision of our procedures will address their apparent concern or provide a better result than current procedures.

A major concern relates to GAO's apparent intention to publish a number for "bonus loss due to areawide leasing" without reporting an estimate of the Government revenue gains that are expected to result from earlier receipt of bonus, rental, royalty, and tax revenues under the areawide program. Although GAO is expected to recognize that these factors are likely to occur, we are concerned that drawing attention to one portion of Government revenue only may skew the views of casual readers of the report. Our concern is heightened by the fact that quantification of these "other government revenue effects" under specific assumptions is not exceedingly difficult.

We have attached a preliminary assessment of the effects of receiving these revenues earlier. These analyses indicate that the present value effect of earlier receipt of bonuses, alone, from Central and Western Gulf of Mexico tracts leased in sales 72, 74, 81, and 84 in 1983 and 1984 is in excess of $1 million per tract; for sale 98 (held last week in the Central Gulf of Mexico), this figure is expected to exceed $3.5 million per tract. If the present value gain from earlier receipt of other Government revenues expected from tracts leased during sales 72, 74, 81, and 84 is included, the gain is expected to exceed $5 million per tract under reasonably conservative assumptions. If the present value gain of tracts leased in sale 98 is added, this value will be greater.

Under GAO's normal policy, affected Agencies are afforded the opportunity to review and comment on draft GAO reports; however, Congressman Dingell has requested that the GAO not obtain Agency comments on this report. Consequently, the Department will not have the opportunity to review the report prior to its publication and release by Congressman Dingell.

Attachment

Present Value Implications From Early Leasing

The large lease sales in the Gulf of Mexico during 1983 and 1984 resulted in much more acreage being leased than the historic rate. The leasing in 1983 would have taken 5 years at the historic rate, and the leasing in 1984 would have taken 4 years at the historic rate. The following briefly indicates the present value benefits of receiving the bonuses and other revenues earlier.

Assumptions

The tracts leased in 1983 would be leased over a five year period at a uniform rate.

The tracts leased in 1984 would be leased from year five to year eight at a uniform rate.

PI = the relationship of other Government revenues (rental, royalty, and tax payments) to the bonus, i.e. when multiplied by the bonus equals the present value of other Government revenues.

Omega = the increase in present value of taxes because of the effect on taxes from a lower bonus tax write off.

Delta = value per tract from earlier leasing through sale 84.

Results

PI	Omega	Delta (in millions)
0	0	$1.0
.5	0	$1.8
1.0	0	$3.0
1.5	0	$4.6
.5	.2	$2.6
1.0	.2	$4.6
1.5	.2	$8.5

Delta is the solution to the following equation:

$$\begin{aligned}&\text{Bonus}_{83} + \text{PI}*(\text{Bonus}_{83} + \text{Delta}*\#\text{tracts}_{83}) + \text{Omega}*(\text{Delta}*\#\text{tracts}_{83}) +\\&(1/1.08)*\text{Bonus}_{84} + \text{PI}*(1/1.08)*(\text{Bonus}_{84} + \text{Delta}*\#\text{tracts}_{84}) +\\&\text{Omega}*(1/1.08)*(\text{Delta}*\#\text{tracts}_{84}) =\\&\quad\sum_{i=0}^{4}(1/1.08)^{i}*((1+\text{PI})*(\text{Bonus}_{83} + \text{Delta}*\#\text{tracts}_{83})/5) +\\&\quad\sum_{i=4}^{7}(1/1.08)^{i}*((1+\text{PI})*(\text{Bonus}_{84} + \text{Delta}*\#\text{tracts}_{84})/4)\end{aligned}$$

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ENCLOSU

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, DC 20240

AUG 27 1985

Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20515

Dear Mr. Dingell:

Your letters to the Secretary (July 19, 1985) and to me (July 18, 1985) transmitted the U.S. General Accounting Office (GAO) report entitled "Early Assessment of Interior's Area-wide Program for Leasing Offshore Lands" and posed several questions regarding our program. Our response to your questions 1 through 11, as well as other questions raised in the body of your letters, is contained in Enclosure 1.

We also note that the GAO report contains several findings not addressed in your letters. For example, the GAO recognizes that exploration has greatly accelerated under areawide leasing. This is one of the major goals of the OCS Lands Act and already is leading to new discoveries. The GAO report also concludes that the Department's presale planning process is adequate and generally well accepted by affected States, environmental and fishing groups, and oil and natural gas companies. The GAO characterizes the Department's presale reports as "complete" and "accurate." Additionally, the GAO report supports changes made last year to the bid acceptance process, although the report does recommend that additional technical modifications be considered for a relatively small number of tracts.

Your July 18, 1985, letter to me correctly concludes that we believe, in general, that our Agency "is now doing fine, that area-wide leasing is sound, and that the Government is receiving fair market value under this program." However, this does not mean that we are not constantly reviewing methods to improve a basically sound program. For example, since the conclusion of GAO's review in December 1984, we have continued to focus our leasing approach on areas of greater interest to industry and have further refined our bid adequacy procedures based upon experience with the program. Specifically, we no longer use the geometric average evaluation of the tract (GAEOT) for bid adequacy decisions regarding drainage and development tracts which receive only two valid bids. The decision memorandum for this action (Enclosure 2) indicates that this was a close call; we chose to be conservative. The record shows that we are willing to review the suggestions of the GAO and others and make appropriate adjustments. We will continue this practice.

While we are certainly receptive to constructive suggestions for program improvements, suggestions must be based upon, and validated by, solid analyses and correct interpretations of the analyses. While the GAO report does provide useful information and food for thought, there are also deficiencies.

For example, it is not a correct statement that:

> the Federal Government received about $7 billion (or a discounted value of $5.4 billion in 1984 dollars) less than it would have received if the same acreage were leased under the tract-selection program.

Due to the first ten areawide sales, the U.S. Treasury received deposits of $8.8 billion in bonus revenues in 1983 and 1984. The slower pace of leasing which would have occurred under a tract selection program would have returned less than $4 billion in bonus revenues for the same period even if GAO's claim of higher per tract bonuses for tract selection sales were believed to be correct. The GAO's actual claim was a speculative claim related to the possibility of receiving more in bonus revenues in the aggregate in the future. In addition to actually receiving billions more in bonus revenues during 1983 and 1984, we will also receive related royalty and tax payments sooner than would have been the case under a tract selection program. Our analyses indicate that earlier receipt of Government revenues would more than offset the potential bonus reductions claimed by GAO. Clearly, accelerated leasing rates have served to help reduce the Federal deficit. The Treasury has over $4 billion more on deposit, perhaps much more, than would have been the case under tract selection rates and more is on the way. Without these deposits, the Treasury would have had to further increase the national debt and currently would be paying out even more in interest payments than is now the case. These points as well as our reasons for skepticism regarding GAO's claims of per tract bonus "loss" are more fully explained in Enclosure 1.

A second major misconception appears to be your apparent linkage of GAO's claimed per tract bonus loss to the receipt of fair market value.

GAO explicitly recognizes and states that:

> Assuring receipt of fair market value differs from maximizing up-front bid revenues from offshore leases. Under the tract-selection program, industry's high bids usually substantially exceeded Interior's estimates of tract value (MROV and DMROV) -- that is, its own estimate of fair market value at the time of the lease sale. In effect, industry paid a premium over Interior's estimates of tract value...

The GAO concludes that it was this "premium" that was reduced. Nowhere in the GAO report is it concluded or even implied that the GAO's claim regarding bonus reduction indicates that we have failed to assure receipt of fair market value. In fact, GAO concludes that it is this "premium" above and beyond fair market value that was partially reduced. This partial reduction in the "premium" above fair market value was anticipated by the Department prior to the enactment of the program. In fact, it was also recognized and accepted by the United States Court of Appeals.

The United States Court of Appeals in California v. Watt, noting the anticipated reduction in this "premium" but upholding the Government's approach, concluded:

> Lease prices could be held at higher levels by continuing to restrict the availability of leases... It would, however, be tantamount to exertion of monopoly power by the government. Losses to the economy would result just as they do from private monopolies.

The Court concluded that the decision to eschew a restrictive tract selection process in favor of broader access to prospects "was a reasonable one."

A third major misconception arises because of misinterpretation of GAO's valid statement that GAO:

> noted that as of the end of fiscal year 1984, bids had comprised approximately $51 billion (67 percent) of the $76 billion in total direct revenues (bids, rents, and royalties but not taxes, received since offshore leasing began in 1954.

This statement can mistakenly be interpreted as indicating that the majority (two-thirds) of Government revenues excluding taxes from a given tract will be due to the bonus. In fact, the bonus is only expected to comprise 25-50 percent of the present value of Government revenue. A recent study conducted by Minerals Management Service (MMS) staff concludes that for tracts leased through Fiscal Year 1983 in California and the Gulf of Mexico, bonuses (expressed in 1984 dollars) comprised 48 percent of the present value of Government revenues excluding taxes and 35 percent of the present value of Government revenues if taxes are also considered. A major reason for the apparent inconsistency is that the GAO calculation of 67 percent does not include further production, royalties, or rents derived during the post 1984 period from tracts in production as of or before 1984; and also does not include any estimates of new production that will occur on any acreage under lease as of 1984. These assumptions are invalid if used to infer that two-thirds of the Government revenue will be from bonuses. If no more leases were let, billions of dollars in royalty and rental income would continue to flow into the Treasury each year. We anticipate approximately $3.6 billion in Fiscal Year 1985 alone and similar payments would continue into the future. Additionally, studies have indicated that the "taxpayer" is not getting "ripped off" by owners of OCS leases. The recent MMS study mentioned previously indicated that the Government's share of total gross value of OCS production, excluding taxes, was 32 percent. If taxes are included, this percentage may increase to 45 percent. Additionally, two 1980 studies conducted by Professors Mead and Sorenson, University of California, at Santa Barbara, concluded that the internal rates of return for OCS leases were below those for manufacturing industries, in general.

In conclusion, we respond to your question to the Secretary, "What then is the justification for area-wide sales over selected tract sales?" First and foremost, the areawide lease sales held in 1983 alone have already led to the discovery of 61 new fields. This is virtually as many as the 62 new fields that have been discovered for tracts leased in the prior three years of tract selection leasing. The 61 areawide discoveries have been made in only 18 months of exploration. The prior three years of tract selection sales have had additional years for exploration activity to occur. Many more tracts leased under the areawide program have been drilled and the drilling has been at rates comparable to those which occurred under the slower-paced tract selection approach.

Secondly, we have increased deposits to the Treasury during 1983 and 1984 by at least $4 billion more than what might have occurred under the tract selection program, even if GAO's claims regarding per tract bonus reduction were correct. Additional revenue increases from royalties and taxes are also expected. Finally, these major benefits of the program have been achieved in accordance with the mandate to assure the receipt of fair market value and to protect our environment.

Per your request, a copy of this response has been sent to the Comptroller General.

Sincerely,

Wm D Bettenberg

Director

Enclosures

cc: Honorable James T. Broyhill
Ranking Minority Member
Subcommittee on Oversight and Investigations

Honorable Morris K. Udall, Chairman
Committee on Interior and Insular Affairs

Honorable Peter W. Rodino, Jr., Chairman
Committee on the Judiciary

Honorable Walter B. Jones, Chairman
Committee on Merchant Marine and Fisheries

Honorable Sidney R. Yates, Chairman
Subcommittee on Interior and Related Agencies
Committee on Appropriations

Honorable Joseph Wright, Acting Director
Office of Management and Budget

Honorable Charles Bowsher
Comptroller General

Honorable James A. McClure, Chairman
Committee on Energy and
Natural Resources

Honorable Mike Lowry, Chairman
Subcommittee on Panama Canal/OCS

Honorable Jack Fields
Ranking Minority Member
Subcommittee on Panama Canal/OCS

Honorable Don Young
Ranking Minority Member
Committee on Interior
and Insular Affairs

Surname bcc: MMS Gen. File MS610
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AS/LM
CL
Dir's Chron MS610
PR Official File
D. Baker MS610
AD/PR MS620
Desk Files: AD/PR
IRD
BSS

LMS:PR:Miller:vsh/msd/8-26-85:343-3980 Disk: IRD#2

ASSERTION:

For example, you and the GAO have stressed the importance of comprehensive regional mapping for the Gulf of Mexico. That program began in 1982. You estimate that the last phase will be done by late 1987. But areawide sales apparently will be scheduled for the Gulf before then. Further, you state that the lease schedule "has been taken into account in the mapping timetable." You state that this is done at MMS by decreasing or stopping the mapping as the "sale date approaches" and that it "will not begin again until the sale evaluation is completed." In some cases, sales are scheduled "within 90 days or less of each other." Thus, the sales are driving this program. Mapping, which is important to areawide leasing, is secondary at best. That is disturbing. (Page 1 of July 18, 1985, letter to the Director, Minerals Management Service)

Clarification:

Mapping is not secondary at all--it has been and continues to be central to the tract evaluation process. While the Regional Mapping Project (RMP) was initiated in 1982, regional mapping has been conducted and utilized in the Gulf of Mexico (GOM) since the early 1970's. The purpose of the RMP is to organize and consolidate over 17 years worth of data generated by numerous scientists during the evaluation of thousands of lease sale prospects. This project is converting existing information into an easily accessible data base which is being utilized in the task of postsale evaluations to improve the efficiency of our implementation of the bid adequacy procedures. Postsale evaluations utilize the completed portion of the RMP but are not restricted to this data base. The efficiency of postsale evaluation allows concentration of staff and funds on evaluations of tracts actually receiving bids. Additional mapping is conducted after a sale if required prior to a decision on bid adequacy. Our procedures do not permit acceptance of a bid in Phase 2 if maps or data are determined to be inadequate.

The RMP and lease sale evaluation mapping are not mutually exclusive projects. Mapping done at the time of a lease sale evaluation is incorporated into the RMP. Even when the RMP is completed (1987), constant updating will be required. Updating will ensure that as industry drills in deeper waters and to greater depths, data on newly discovered production trends will keep the RMP current.

As stated in our previous response to your questions regarding data adequacy, which may have been misunderstood, these maps will be of sufficient detail to summarize all the geological and geophysical data presently available on the Central and Western GOM Outer Continental Shelf. The cross sectional grid, identifying every known productive interval in this area, will include all well logs and an approximate 4 x 4-mile grid of geophysical data that have been interpreted and correlated across the entire area. While this will expedite tract evaluation, by itself it would rarely be adequate for that task since locating the individual prospects on a tract is required for proper evaluations. We prepare such detailed maps currently and will continue to do so. A map for an individual prospect evaluation is generally based on a much tighter geophysical grid. As previously mentioned, the RMP is summarizing the data and information contained in these thousands of prospect folders to improve the efficiency of identifying potential prospects and producing horizons. The actual resource economic evaluation of these prospects will still generally require reference to the more detailed mapping which we perform both before and after receiving bids for a tract.

The two projects, RMP and lease sale evaluation, are symbiotic. The tracts receiving bids determine where analysis is to be conducted. This analysis utilizes the RMP work that has been completed and enhances the RMP with additional data and interpretations. The RMP is resulting in a series of maps of regional extent to define trends and the subsurface structural and stratigraphic conditions of those trends, thereby, assisting in prospect evaluation. However, the data being incorporated into the RMP are available and in the possession of the GOM Region, and under current procedures are incorporated into the Phase 2 evaluations for individual tracts. Though the RMP is not completed, all the data available to MMS is used to prepare the more detailed prospect specific maps required to assure a thorough evaluation.

As sales occur, the professional staff assigned to the RMP shifts to tract-specific lease sale evaluation. Therefore, prospective acreage can be leased and inventoried as the fundamental objectives of the Outer Continental Shelf Lands Act are achieved.

ASSERTION:

Most importantly, as a result of this program and "decreased competition," the Federal Government has received "$7 billion" less in revenues from the ten area-wide sales "than would have been received if the slower pace of the prior tract selection program had been followed." (Page 2 of July 18, 1985, letter to the Director, Minerals Management Service)

Clarification:

It is not correct to say:

> the Federal Government has received "$7 billion" less in revenues from the ten area-wide sales "than would have been received if the slower pace of the prior tract selection program had been followed."

In the ten areawide sales, the Federal Government received $8.8 billion in bonus revenues. Even if one accepted the GAO claim that bonuses might have been $3.1 million per tract higher in tract selection sales, one cannot conclude that the Treasury would have received more than the $8.8 billion actually received during this time period. In fact, even with a $3.1 million higher bonus on average per tract, the slower pace of leasing of the tract selection sales would have generated less than $4 billion in bonus revenues in the same time period.[1] As the GAO says on page 64, "it would have taken 98 months--that is, until June 1991--to lease the same acreage." Most of the tracts under consideration would not now be under lease at the previous leasing rates and we would not have received any bonus revenue at all from the unleased tracts. The accelerated leasing rate has certainly served to help reduce the Federal deficit during the past two years.

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[1] During 1983 and 1984, $8.8 billion was received by the Treasury as bonuses for areawide sales. The GAO claims that a total of $15.8 billion might have been received for these same tracts under a tract relection program which would take approximately 98 months. By the end of 1984, only about one-quarter of the tracts leased under areawide leasing would have been leased under a tract selection program. Accordingly, only about one-quarter of the bonuses would have been received, $4 billion, ($15.8 billion/4) by the end of the 1984 under a tract selection program.

Our analysis, Enclosure 3, estimates that leases issued in the Central and Western Gulf of Mexico in 1983-1984 would have had to yield perhaps as much as $8.5 million more per tract if sold in tract selection sales at the annual rate of leasing from 1979-1982 to balance the Treasury's loss from receiving tract selection sale revenues much later. Slower leasing would have to yield increases much greater than $8.5 million per tract if the cumulative impact of accelerated leasing on all OCS development is considered. The GAO claim of $3.1 million "lost" revenue per tract, is both questionable and more than offset by the value to the Treasury of receiving bonuses, royalties, and taxes, earlier as a result of accelerated leasing of the OCS.

We also have very serious concerns about the reliability of the GAO estimate of bonus loss. The GAO concluded that their "statistical analyses indicated that about one-half of a bid per tract of this decrease is attributable to the shift to the area-wide program." We are very puzzled by this conclusion. When we examine the results of the statistical analyses reported in Table 3 on page 60 of the GAO report, we calculate that for GAO's base case specification the areawide sales in 1984 received an average of about 1.45 (1.97-0.52) more bids per tract than did the tract selection sales in 1979 and the areawide sales in 1983 received an average of about 1.07 (1.59-0.52) more bids per tract than did the sales in 1979. In fact, the conclusion to be drawn from that statistical analysis is that only two sales in Alaska, held in 1983, received more bids per tract on average, after adjusting for other factors, than did the areawide sales of 1983 and 1984. This conclusion that more bids rather than fewer bids per tract are now being received, is contrary to the actual trend. But that is what the GAO analysis implies. More importantly, it indicates that there are very serious statistical problems with the GAO analysis.

The GAO report contains several sets of equations which attempt to explain the relationships of the high bid and numbers of bidders for a tract with casual factors, such as value of the tract, price of oil, etc. The equations where the GAO included the year in which the sales were held as a "dummy" variable in their statistical analyses (the base case and specifications 1, 2, 4, and 6) lead one to conclude that sales in 1983 and 1984, the only years in which areawide lease sales were held, had more bids per tract and generally higher bonuses per acre, after adjusting for the other factors in their analysis. Those equations in which the GAO did not include the year the sale was held as a "dummy" variable (specifications 3 and 5) result in no statistically significant relationship between areawide leasing and the level of bonus bids or the number of bids received and, therefore, indicate that there was no bonus loss.

Question 1: What effort has the MMS made to estimate the value of rents and royalties in 1984 dollars from the ten area-wide sales? What are those estimates? What portion is for rents? Do you believe that they will be sufficient to recover fully the bid loss of $7 billion? When will this recovery occur?

Response: The MMS estimates of the gains from areawide OCS lease sales are reported in the draft of Appendix P to the 5-Year OCS Leasing Program which was circulated to the Governors and other interested parties for review on July 17, 1985. The Treasury will gain from areawide sales because bonuses, rents, royalties and additional taxes resulting from the leasing that occurs will be received sooner. Earlier receipt of revenues reduces the interest which the Treasury pays on the national debt. The estimates in Appendix P (see pages P-25 through P-29) focus upon the Central and Western Gulf of Mexico areas. The Treasury gained from receiving bonuses from the 1029 leases issued in 1983 and 814 leases issued in 1984 in areawide sales. Assuming constant oil and gas prices, these bonuses would have been received over the 1983-1991 period under the slower leasing rate of the tract selection process. The Treasury gain in 1983 dollars from earlier receipt of bonuses for these 1843 leases is estimated to be $1 billion. With a declining oil price, these bonuses may never have been realized during 1983-1991 under a tract selection program.

The Treasury will gain in a similar fashion by earlier receipt of other revenues from these 1843 leases issued in 1983-1984. MMS has estimated that, on average, other Government receipts are 1 to 3 times the bonus for a Gulf of Mexico tract. (The historical ratio of total bonuses to total lease revenues cited by the GAO--67 percent--is misleading because: (1) it excludes royalties yet to be collected on many tracts for which bonuses have been received, and (2) it excludes additional taxes.) If the other government revenues are estimated to average 1.5 times the bonuses received for the 1843 tracts, the Treasury gains will total $3.6 billion in present value terms. It is important to emphasize that it is not the other revenues themselves that offset any decline that may have occurred in bonuses, but the reduced interest payments resulting from earlier receipt of all revenues. Such gains are of sufficient importance to warrant substantial cash management efforts by Treasury and other Government agencies.

In addition to gains from earlier receipt of revenues, the Treasury would recapture some of the GAO's claimed "bonus loss" by increased taxes. To the extent that bonuses are lower on the leases issued, the write-offs against future tax payments will be lower, potentially giving higher tax receipts.

Furthermore, leasing and searching for oil and gas is a sequential process in which new prospects are identified each year using the results of exploration from previous years. Tract selection leasing would have severely limited the rate at which industry searched through the many prospects made attractive by the price increases of the 1970's. Areawide leasing in 1983 and 1984 has made it possible to advance the exploration process by as much as 9 years. Further advances will be realized as long as the accelerated leasing and exploration rates exceed those that would have resulted from tract selection leasing. These advances in the timing of resource development yield gains similar to those to the Treasury from earlier receipt of revenues. It is difficult to specify with much certainty the economic conditions and resource development over the next four decades in the Gulf of Mexico. However, under reasonable assumptions, it appears that advances in development under accelerated leasing could yield additional gains of $8 to $12 billion in the present value of oil and gas resources yet to be leased in the Gulf of Mexico. Thus, rather than perhaps "losing" revenues, the Treasury may have gained as much as $16 billion from accelerated leasing.

Question 2: I am somewhat surprised at Interior including tax revenues as part of the recovery of those losses. What are those revenues, when will they occur, and how do they compare with such revenues from the tract selection process? Does the Treasury Department agree with your estimates?

Response: The faster pace of leasing has resulted in gains in tax revenues independent of whether or not bonuses declined or were enhanced by areawide leasing. Gains to the Treasury from areawide leasing occur via tax revenues in two ways. First as with royalties, any tax payments associated with the leases will accrue to the Treasury sooner because leasing and development occur sooner. Earlier receipt of tax payments reduces Treasury's interest payments. It is not the tax payments themselves that offset bonus losses, it is the reduced interest payments made possible by their earlier receipt.

Second, if bonuses are reduced, then the write-offs of bonuses against future income will be reduced. This potentially will increase tax payments. These increased tax payments will also reduce the Treasury's interest payments.

The models we use to estimate taxes apply assumptions consistent with the Tax Code. A copy of our draft analysis (Appendix P) has been sent to the Treasury Department for comment.

Question 3: What are the rent and royalty rates? Are they adequate in light of this bid loss?

Response: The rental fee is $3 per acre per year. The royalty rates are 12-1/2 percent and 16-2/3 percent, depending upon water depth and operating conditions. The royalty and rental rates affect the cash value of a lease; the higher the royalty and rental rates on a given tract, the lower will be its cash value. Leasing with higher royalty rates would thus tend to reduce the bonuses bid for OCS leases, shifting the revenue to later years. Such effects would occur in addition to any effects on bonus bidding that may have resulted from areawide leasing. Higher royalty rates would not correct for any tendency for bonuses to be lower. However, high royalty rates would make substantial amounts of oil and gas resources uneconomical to explore for and develop. Extensive testing and analyses conducted during the five-year period 1978-1983 indicated our present royalty rates best achieve the goals of the Outer Continental Shelf Lands Act, as amended.

Question 4: Do you agree with GAO that OCS oil production "is a relatively small contributor to domestic production" and that "natural gas from OCS lands is becoming a more important contributor to domestic production?"

Response: In 1984, offshore oil production represented 11.9 percent of domestic oil production while gas represented 25.3 percent of domestic gas production. While in the past decade OCS oil's percentage contribution to domestic production has remained relatively stable, OCS production of natural gas has increased from 20 percent of total domestic natural gas production in 1974 to 25.3 percent in 1984. We would consider both offshore oil and gas production to be significant contributions to domestic production and the national welfare. Certainly, OCS oil and gas resources are worth exploring for and developing.

Energy projections for the next 10 to 15 years indicate that U.S. domestic production of oil and gas will continue to decline and imports will rise. The average amount of unleased, undiscovered economically recoverable oil and gas resources on the OCS is estimated to be 18.4 billion barrels of oil equivalent. The net economic value to the Nation of their leasing and development is estimated to be $90 billion as of January 1987. Appendix F to the draft proposed 5-year program contains a detailed account of these estimates. As the Appendix explains, the price of oil is set by an international market place which anticipated incremental changes in United States production alone have little ability to affect. The GAO report appears to agree with that conclusion. The failure to explore, develop, and produce these resources, however, will result in increased imports and dependence on foreign oil. A September 1984 study by the Office of Technology Assessment titled U.S. Vulnerability to an Oil Import Curtailment: The Oil Replacement Capability examines the ability of the U.S. economy to adjust to a 3 million barrel a day shortfall in imported oil. The study found that the United States has the technical and manufacturing capability to replace the shortfall within a 5-year timeframe but not without increases in the price of oil and decreased levels of economic productivity as measured by the GNP and domestic employment.

The development of OCS oil and gas resources contributes to our national security because of its potential to replenish our decreasing domestic reserve base and to displace imports. Availability of supplies within our national jurisdiction reduces our susceptibility to international supply disruptions.

Question 5: The GAO notes that the OCS Lands Act "does not require Interior to maximize the amount of up-front bid revenues" per tract. But "maintaining the flow of these up-front bid revenues to the government is an important consideration of the program." Do you agree?

Response: Yes. The Department agrees that the OCS Lands Act does not require maximization of per tract bonus revenues. The Department also recognizes that the impact of Federal revenues derived from Government programs is an important consideration, both to the Treasury and the general economy. In California v. Watt, the U.S. Court of Appeal's opinion states "Section 18(a)(4)'s requirement that the program assure receipt of fair market value does not mandate the maximization of revenues, it only requires receipt of a fair return. The opinion further states "that the contrived intensity of competition achieved by the government's prior use of its monopoly power may have produced prices in excess of fair market value and thus not socially optimal."

In the first two years of the accelerated leasing program, the U.S. Treasury received $8.8 billion in bonus revenues. This amount is over $4 billion more than would have been achieved in the same period under the more restrictive tract selection program even if the higher per tract bonuses claimed for tract selection sales by the GAO were accurate. The Treasury will also gain by earlier receipt of rentals, royalties, and taxes generated from the leases issued. The total revenues received by Treasury from accelerated leasing in the Central and Western Gulf of Mexico for the years 1983 and 1984 potentially will result in a gain of $3.6 billion in present value terms in reduced interest payments, when compared to what might have occurred under a tract selection program. Since OCS leasing is a sequential process, additional gains from subsequent lease offerings will be even greater. These gains have been achieved while reducing artificial constraints upon the exploration for and development of OCS prospects. Indeed, the number of new fields discovered on tracts leased in 1983 areawide lease sales is equivalent to the number of discoveries during the prior three years of tract selection sales--and in less time. Additionally, we have fulfilled our mandate to assure the receipt of fair market value. Even GAO recognized that its claimed per tract bonus reduction would have come from the "premium" over and above fair market value that was paid due to the constrained tract selection program. (See page 33 of GAO's report.)

Question 6: If the bid revenues are not recovered through rents and royalties, do the oil companies gain a windfall?

Response: Companies only gain a "windfall" (excess profit) if revenues received greatly exceed costs including a normal return upon investment. Companies submit bids based upon expectations of future revenue and cost streams which are highly uncertain. Windfalls are only possible if revenue streams are larger than expected (e.g. due to a large discovery) or if costs are less than expected. Freedom to enter the lease sale market and compete for tracts helps to ensure that companies bid away excess profits. The competitive bidding process, bid adequacy procedures, Federal income tax structure, and our royalty system help ensure equitable sharing between the Government and the private sector.

However, if we receive a lower bonus and this loss is not offset by downstream payments from rents, taxes and royalties, the oil companies might gain a windfall from leasing the tract if the loss in bonuses can be attributed to an underevaluation of the resource by the firm submitting the bid and assuming the firm encounters an economic discovery of sufficient magnitude to more than offset costs. On the other hand, if companies are bidding on tracts in deeper water having higher costs and more uncertain resource estimates, then their lower bids will reflect these adjusted cost and risk factors, and no windfall will have been generated. We believe our procedures are adequate to assure the receipt of fair market value.

Question 7: The GAO makes this recommendation:

> We believe that this report presents information and analyses on the effects of area-wide leasing on competition and bid revenues that should be considered in developing the next 5-year leasing program. While we recognize that it is too early to assess many of the potential benefits of area-wide leasing, we recommend, however, that the Secretary of the Interior consider the effects on competition and bid revenues in relation to the anticipated benefits, and report his findings to the Congress.

What steps will you take to carry out this recommendation and when?

The GAO report also found that:

° After six area-wide sales, in 1984 Interior concluded that "competition per tract had decreased" under this program;

° Interior still "relies on competitive factors to assure receipt of fair market value";

° Under the tract selection program, Interior developed two estimates of value for each offered tract--the mean range of values called "MROV" and the discounted mean range of values called "DMROV";

° MROV is the "government's estimated value of a given tract at the time of the lease sale";

° DMROV is the "value of all expected future government revenues if the bid is rejected in the current sale and the tract is leased at the next scheduled sale date";

° In 1982, Interior adopted another criterion which is a "geometric average for the tract" called "GAEOT" which gives "greater weight to companies' bids than to Interior's estimated value of the tract because bids (two or more) are geometrically averaged with Interior's single values."

° The OCS Lands Act requires fair market value, but does not define it;

° MROV, DMROV, and GAEOT are supposed to help MMS obtain fair market value for tracts leased;

° In a January 7, 1982, memorandum to Interior's Under Secretary, Assistant Secretary J. Robinson West said that "policies affecting receipt of fair market value included the size and timing of lease sales," and that the "proposed 5-year leasing program will substantially increase the rate of leasing, and the charge may be made that the bids from firms seeking OCS leases will be so spread out among the many tracts that competition on each tract will no longer be adequate to assure receipt of fair market value by the government";

° Under the tract system, industry's high bids "usually substantially exceeded Interior's estimates" of fair market value "at the time of the lease sale," but since competition per tract "has decreased under the increased pace" of the new program, "industry has been less willing to pay such a large premium"; and

° Interior's own independent estimates of tract value provide "more assurance of receiving fair market value" than "relying solely on the receipt of three or more bids" per tract criterion.

The GAO then concludes:

> Because no detailed evaluation was conducted for the 305 tracts leased under this criterion in the first ten area-wide sales, Interior had little knowledge of tract's resource value and was not a knowledgeable seller. Of these tracts, Interior leased 97 (for over $638 million) without conducting its own evaluation even though Interior believed it had good or excellent data with which to evaluate these tracts. With little additional effort Interior could have developed and used its own independent valuations (MROV and DMROV) to properly ensure that the high bids captured the value of the tracts at the time and place of the lease sale. In other words, Interior would become a more knowledgeable seller in those cases, thus ensuring receipt of fair market value.

> *We believe that relying solely on the receipt of three bids does not ensure that the high bid will equal or exceed Interior's own estimates of tract value.* If the three or more bids criterion had been applied to tract selection sales, some tracts would have been leased for significantly less than Interior's estimates of their value (MROV and DMROV). For example, if the three or more bids criterion had been used in the prior tract selection sales, high bids for 20 of the 184 tracts (10.9 percent) rejected as being too low would have been accepted under this criterion for $826 million less than Interior's estimates. In one tract selection sale, Interior rejected the highest of three bids--$7.2 million--as being too low. If Interior had relied solely on the receipt of three or more bids to ensure fair market value, the tract would have been leased for 35.3 percent of its estimated MROV ($20.4 million) or 40 percent of its DMROV ($18 million). (Underlining supplied.)

GAO cites (at page 36 of the report) three cases in which a company "(competing against itself)" submitted two separate bids for the same tract. They are:

Case No.	Sale	Firm	Number of Bids	Amount	Interior Action
1.	4/24/84	Mark Producing, Inc. [a]	(1)	$3,790,000	Rejected
		Mark Producing, Inc.	(2)	$1,122,000	
2.	8/22/84	Amerada Hess Corp.	(1)	$2,558,400	Tract non-viable and leased to Hess
		Amerada Hess Corp. Amoco Production Shell Western Koch Industries	(2)	$1,158,000	
3.	8/22/84	BP Alaska Exploration	(1)	$5,888,000	Because tract received four bids, it was leased under three or more criterion
		BP Alaska Exploration Sohio Alaska Pet. Phillips Petroleum Petrofina Delaware	(2)	$1,670,000	
		Amoco Production Union Oil Shell Western	(3)	$1,271,000	
		Exxon ELF Aquitaine	(4)	$ 914,000	

[a] TXP Operating Co. was the partner of Mark Producing, Inc. on the high bid and held a 70 percent interest.

Response: With respect to GAO's recommendation, the Secretary of the Interior will present his report on the effects on competition and bid revenues in relation to the anticipated benefits of areawide leasing in the new 5-year leasing program documentation. The proposed program documentation is scheduled to go out for State, Congressional, and public review this winter and the proposed final program would be submitted to Congress the following winter pursuant to Section 18 of the OCS Lands Act. A preliminary analysis of the effects of areawide leasing appears in the draft of Appendix P which was released in July 1985. Information provided by the GAO and others will be considered prior to our submission to Congress.

The following comments are provided on various statements contained in question 7:

- Under the tract selection program, Interior developed two independent estimates of value for each offered tract (MROV and DMROV). The MROV is an estimated, through uncertain, value of a given tract at the time of the lease sale. The DMROV represents the discounted measure of the MROV at the time of reoffering if the high bid is rejected, with further adjustments for delayed receipt of royalties and net losses due to drainage. Under the tract selection program, Interior developed a third estimate using actual lease market data. It was called the average evaluation of the tract, (AEOT). The AEOT represents the arithmetic mean of all the bids on a tract and the MROV and was used as a bid acceptance criterion prior to October 1982. In October 1982, in Sale 71, the geometric mean of all the bids on a tract and the MROV (GAEOT) was substituted for the AEOT. Although the GAEOT was not used prior to October 1982, each Regional Manager was given discretionary authority in a memorandum dated August 19, 1977, to use the GAEOT in lieu of the AEOT if he concluded that the distribution of the evaluation was skewed to the right and the number of bids on the tract exceeded the average number of bids for that type of tract.

° In a January 7, 1982, memorandum to the Under Secretary, Assistant Secretary J. Robinson West stated that the charge might be made that the areawide program would spread the bids out among the many tracts and the competition on each tract would no longer be adequate to assure receipt of fair market value by the government. This and other concerns led to raising the minimum acceptable bid from $25 to $150 per acre (which was implemented March 12, 1982) and the inclusion of certain bid adequacy criteria to guard against the acceptance of less that appropriate bid amounts on individual tracts where competition was weak. Additionally, the U.S. Court of Appeals for the District of Columbia Circuit was asked to determine in California v. Watt whether the Secretary would meet the statutory requirement "to assure receipt of fair market value for the lands leased and the rights conveyed" by OCS oil and gas leases, in light of the fact that the "accelerated rate of leasing might ordinarily result in less intense competition and lower bids for some tracts."

The court in reviewing the issue ruled that, despite the lower bids expected, "the proposed evaluation process, coupled with the Secretary's reasonable reliance on the integrity of the competitive bid process, is sufficient to assure that the fair market value is received. The statute requires nothing more."

° By the very fact that tract offerings were very limited under the tract selection process, industry may have paid a premium for the leased tracts. With larger offerings such a premium per tract could be expected to decrease. In fact, GAO concludes "industry paid a premium over Interior's estimates of tract value" under the restricted tract selection program and under the areawide leasing program "industry has been less willing to pay such a large premium for tracts being leased."

GAO states that Interior's own estimate of tract value provides "more assurance of receiving fair market value" than "relying solely on the receipt of three or more bids" per tract criterion. The original OCS Fair Market Value Task Force found that application of this criterion focuses further detailed evaluation efforts on those tracts which received less than the average level of competition in a sale and less than the historical level of recorded competition (three bids). Analysis of historical data indicates that even if Interior had done a detailed evaluation, use of the GAEOT (or AEOT) accepts virtually all high bids on tracts receiving at least three bids except in unusual cases. Therefore, an evaluation is redundant.

° GAO states that in tract selection sales, 20 tracts which were rejected because they received bids below the MROV and DMROV would have been accepted by the three or more bids rule. In fact, 24 proven and wildcat tracts receiving three or more bids in Sale BF, Beaufort Sea (December 11, 1979) through Sale 70, St. George Basin (April 12, 1983) were actually rejected. Of those 24 tracts, only 14 were leased at subsequent lease sales; the nominal gain on these 14 tracts was $10.1 million. The 10 tracts which remain unleased would have yielded $23.8 million in high bids if they had been leased for the bonus originally offered. Thus, rejecting these 24 tracts led to a nominal loss to the Treasury of $13.6 million. The loss in present value terms at the time of the sales was even greater.

For the 14 tracts which were subsequently leased:

-- only 3 wells have been completed; two were dry and one indicates a producible gas field;

-- only 1 additional tract has an application for permit to drill pending;

-- 9 tracts have had no drilling or applications for permits to drill (at the least, tracts are 2-1/2 years into their primary term); and

-- 1 tract has been relinquished.

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The majority of the 24 tracts were located in frontier areas with half being rejected in Sale 59, Mid-Atlantic, alone. These areas have very uncertain resource values. For example, 1 tract receiving more than 3 bids which was rejected in Sale 59 had a high bid of $2.1 million but Government MROV of $105.2 million. Upon reoffering in Sale 76, this same tract received a high bid of $1.3 million. This high bid was accepted because the Government's estimate of MROV had fallen to $400 thousand. Experiences such as this and further analysis led to adoption of the GAEOT procedure.

- GAO cites three cases in which a company competed against itself and submitted two separate bids for the same tract. In the first instance, TXP Operating Co. and Mark Producing, Inc. had the high bid on a two-bid tract in Sale 81. Mark Producing, Inc. also submitted the second high bid on the tract. After a detailed analysis, which any two-bid viable tract receives under the current bid adequacy procedures, the high bid was rejected as insufficient. However, as a result of this case, Interior instituted a new bid adequacy procedure which eliminated from consideration in the three or more bids criterion and the GAEOT all but the highest bid submitted by a company which bid more than once on the same tract. In Sale 84, two other examples of a company bidding on the same tract twice were observed. In the first case, the tract was accepted because it was determined to be nonviable, so the dual bids were irrelevant for bid adequacy. In the second case, the tract received four bids. Although the lower of the two bids submitted by BP Alaska and others was not considered in computing the three or more bids criterion, the tract was leased to BP Alaska because there still remained a total of three bids on the tract.

Question 8: The GAO states that:

> On July 13, 1984, Interior began eliminating all but the highest bid from any company submitting more than one bid for a tract. The low bid, whether the company bids alone or jointly with other companies, is not considered in the bid acceptance process.

Please explain how this change works and how it corrects this problem. Is the above practice allowed under the regulations and law?

Response: On July 13, 1984, the definition of an anomolous bid was expanded. The change was made based on an unusual form of bidding which was observed in Sale 81, Central GOM and Sale 87, Diapir Field. In those sales, a company submitted two bids on the same tract; it submitted a solo bid and one bid with another company. It is inappropriate to count both bids in determining the number of valid bids on this tract in Phase 1. Thus, the anomolous bid rule was changed to accommodate this situation. In cases where the same company, parent and/or subsidiary (not necessarily having the same name), participates alone or jointly in more than one bid on the same tract, all but the highest of such bids by that entity are considered invalid in computing the number of bids on the tract and the average number of bids parameter in Phase 1. Thus, all but one of the multiple bids are excluded for the purposes of computing two statistics in Phase 1: (1) the number of bids on the tract and (2) the average number of bids parameter. In addition, in those instances in Phase 2 in which the GAEOT is used, it is excluded from the computation of that average in the bid acceptance process. The practice of submitting more than one bid for a tract is not, by itself, inconsistent with the law and regulations.

Question 9: The GAO states that Interior, using the GAEOT criterion, leased 26 tracts in the first 10 areawide sales for "less than its estimates of their value." The GAO said:

> We question the appropriateness of using this criterion for leasing tracts where Interior has good or excellent supporting information for its evaluations.

Interior, in one case, said the tract's value (MROV) was $11 million and discounted value was $10 million, but Interior leased the tract for $6.6 million because the GAEOT was $4.9 million. The GAO said:

> Interior, in effect, gave more importance to two dissimiliar bids than to its own good supporting data and estimated MROV and DMROV. Therefore, in relying on the GAEOT criterion, Interior receives less than its estimates of tract value.

The GAO believes that under this criterion "undesirable or noncompetitive practices" could occur, such as "strategic bidding, gaming, and collusion." The GAO defines these terms as follows:

> Strategic bidding occurs when companies take their competitor's actions into account and attempt only to exceed their rivals' bids, rather than offering the full value for the offshore lease. Gaming occurs when companies bid against Interior's procedures and criteria in an attempt to beat the system in order to obtain leases for less than fair market value. Collusion is two or more bidders acting together through a secret agreement in an attempt to lower their cost of lease acquisition.

The GAO then said:

> Gaming or strategic bidding practices become more attractive under the GAEOT, since the right combination of bids mathematically guarantees acceptance of the high bid and because the criterion does not apply to tracts receiving only one bid. The right combination of two or three bids could guarantee the high bidder the lease to any tract Interior offers (high bid will be greater than GAEOT).
>
> We identified one case under the criterion where merging companies submitted the only bids for a tract -- $2 million and $0.9 million, respectively. Interior estimated the tract to be worth $854,784, and the higher bid was accepted. However, this combination of bids would have mathematically guaranteed that the high bids would have been accepted under the criterion even if Interior had valued the tract up to $4.47 million.

In this case, the sale occurred in April 1984. The "merging" firms were, according to GAO, Gulf Oil and Chevron U.S.A. The merger agreement predated the sale.

The GAO recommends:

> We believe -- particularly with the reduction in bid revenues under areawide leasing -- that two of Interior's bid-acceptance criteria (three-or-more-bids and geometric average) should not be used in place of Interior's estimates of tract value when it has good or excellent supporting data. In order to become a knowledgeable seller and have increased assurance that the high bids represent fair market value, we recommend that in those cases where it has good or excellent supporting data to estimate tracts' values, Interior should use its independent estimates of tract value for assessing the adequacy of high bids.
>
> > (a) What action will you take to implement this recommendation and when will you do it? What actions will you take to ensure that strategic bidding, gaming, and collusion will not be allowed to occur? How do you prevent such practices?
> >
> > (b) Does Interior still allow acceptance when the only bids are by merging companies? Was this acceptance proper?

Response: The use of the GAEOT was not initiated with areawide sales. In 1977, OCS Managers were given discretion to use the GAEOT; its first use was in Sale 71 in October 1982. The most recent changes in the bid adequacy procedures, adpoted on May 20, 1985, discontinued the use of the GAEOT on drainage and development tracts which receive only two valid bids. These changes were made after extensive consideration of many options. The GAEOT in Phase 2 is now only applied to wildcat and proven blocks receiving two adjusted bids and all blocks receiving three or more adjusted bids. The change was made to eliminate the anomolous situations to which the GAO refers, that is, those in which a high bid on a drainage and development block is rejected because of a second high bid close to the high bid, whereas, it would have been accepted if the second high bid were much less. This change places more reliance on the MMS tract value estimates on two-bid drainage and development tracts on which MMS has excellent data and on which the likelihood of asymmetric information may influence the bid.

The GAO's statements regarding the definitions of strategic bidding, gaming, and collusion are accurate. The bid adequacy procedures include measures to ensure that fair market value will be received in light of these practices. Gaming, strategic bidding, and collusion and their adverse effects on the Government's receipt of fair market value are recognized by MMS to be a potential market condition. In order to avoid such effects, the procedures specifically provide for:

° A full evaluation of drainage and development tracts, where asymmetric information may lead to shading the bids.

° The anomolous bid rule filters out unusually low bids and more than one bid by the same company in order to prevent the situation of bidders attempting to beat the number of bids rule.

° Discretionary authority delegated to the Regional Directors to identify and document unusual bidding patterns in Phase 1 and pass tracts to Phase 2 for further evaluation if such patterns exist.

Currently, a model is being tested to determine if a statistical measure can be used to aid in identifying unusual bidding patterns. The minimum bid level also acts as a deterrent to speculative bidding patterns.

As provided for in section 8(c) of the OCSLA, the Antitrust Division of the Department of Justice and the Federal Trade Commission review the bids for possible collusion prior to the awarding of any leases. The Attorney General is authorized to make recommendations to the Secretary to prevent any situation inconsistent with the antitrust laws.

The observation GAO makes of the signing of a merger agreement prior to a sale provides no legal grounds that the bidding companies represented are one company for bidding purposes. Review of the bids in Sale 81 by the Antitrust Division of the Department of Justice and the Federal Trade Commission did not result in any identified collusive behavior by the bidders. Moreover, both companies bid more than the MMS's mean range of values (MROV).

The OCS Bid Adequacy Procedures, developed by the OCS Fair Market Value Task Force in 1983, provide for partitioning tracts receiving bids into three general categories:

- Those identified by MMS as being nonprospective (nonviable);
- Those where opportunities for strategic underbidding, information asymmetry, collusion, and other noncompetitive practices might most likely occur and where the Government has the most detailed and reliable data; and
- Those where the competitive market forces can be relied upon to assure fair market value.

The three or more bid rule provides the measure for accepting bids on wildcat and proven tracts receiving bids where competitive market forces can be relied upon to assure receipt of fair market value.

In the OCS lease market, the potential competition for individual leases is an important factor in bid formulation. Bidding theory recognizes that, in addition to the tract-specific evaluations, expected competition is a factor that should be taken into account in bid formulation (E. C. Capen, R. V. Clapp, and W. M. Campbell, "Competitive Bidding in High Risk Situations," Journal of Petroleum Technology, 23, 1971, pp. 641-653, and J. G. Riley and W. F. Samuelson, "Optimal Auctions," American Economic Review, 71, June 1981, pp. 381-392). Although it may seem counterintuitive, theory indicates that bidders in OCS auctions generally should reduce their bid when the expected number of competitors increases beyond two. Thus, the tendency for the high bid to increase as competition increases is, at least in theory, not due to each bidder bidding higher, but rather because there are more bids from which the high bid will emerge.

Both theoretically and empirically, the high bid tends to increase as the number of bids increases on a given tract. The OCS Task Force Report on Fair Market Value (February 1983) concluded, based on the historical average of recorded competition (as measured by the number of bids received), that when three or more prospective buyers submit a bid for an oil and gas lease, competition in the marketplace is sufficient to assure a fair return to the seller. (This conclusion was qualified in the event that a sale had an average number of bids in excess of three. Also, the number of bids rule is applied to wildcat and proven tracts, on which there is the absence of asymmetric information affecting the bids.) We have no reason to believe that the three-bid rule does not continue to operate as an effective market measure to assure fair market value.

The GAEOT's use in the bid adequacy process has evolved since it was initially introduced in 1977. As we stated earlier, the most recent change in the bid adequacy rules, in which the GAEOT in Phase 2 is only applied to wildcat and proven blocks receiving two adjusted bids and to all blocks receiving three or more adjusted bids, reduces the anomolous situations to which GAO refers. The change places more reliance on the MMS tract value estimates on two-bid drainage and development tracts on which MMS has "excellent data" (note that the GAO's use of the term "excellent data" only refers to geological and geophysical data on a tract; it does not also mean that there is excellent economic or engineering data) and in which the likelihood of asymmetric information may influence the bid.

Question 10: The GAO report notes that Interior "has not provided Congress" with annual reports assessing the "cummulative effects of the offshore program on the human, marine, and coastal environment as required by law. I want to know why.

The GAO suggests that Congress "consider whether" such annual reports are needed. Having not received one from Interior, it is difficult for Congress to make that judgement.

Response: We have previously recommended that the OCS Lands Act, as amended, be changed to delete the requirements for the subject report. Our reasons for that recommendation are as follows.

The report would duplicate information currently available. Environmental impact statements (EIS) prepared for proposed OCS oil and gas lease sales contain projections of the expected cumulative impact of each lease sale. Based on the information available to Department of the Interior analysts, those impacts are usually projected to be minimal because past activities have resulted in few measurable impacts which can be added to those of each proposed sale. The programmatic EIS written for the Secertary's 5-year leasing schedule also addresses cumulative impacts, and this document covers the entire OCS. Since annual changes in cumulative levels of impact may be difficult to detect, the EIS on the 5-year program probably serves as a better source for information. In addition to sale specific impact statements, and those written for 5-year programs, the OCS Oil and Gas Information Program provides considerable information on the current and past levels of OCS activities such as the amount of production, numbers of wells and platforms, amount of onshore activity, and other impact causing factors.

A separate report which described the cumulative effects which could be directly attributed to OCS oil and gas activities would be difficult to fashion into a useful document. Impacts are studied as a part of the OCS

Environmental Studies Program. In many cases, impacts projected in EIS's have not been detected by studies carried out later, or impacts could not be separated with certainty from those of other activities, or from natural variations in environment. In other cases, the impacts discovered are temporary and insufficient information is available to project future change and to determine whether those impacts would become cumulative. The direct environmental effects of the offshore leasing program have so far appeared to be negligible, while the indirect effects -- displacing oil, coal, and other energy resources with one-quarter of the domestic supply or clean burning, natural gas, and displacing tankering of significant quantities of oil--appear to be substantially positive. Given that no one in Congress requested such a report in the past six years and the abundance of environmental reports prepared for the offshore program (or about the offshore program by other parties) we agree with GAO that Congress should consider whether another annual report is needed.

Question 11. The Subcommittee also requests your views and comments on the report.

Response: The GAO report is currently receiving detailed review. Our views and comments on the report will be transmitted to Congress as part of our response mandated by Section 236 of the Legislative Reorganization Act of 1970.

This reponse will be completed by September 22, 1985, and a copy will be sent to your subcommittee.

United States Department of the Interior
MINERALS MANAGEMENT SERVICE
RESTON, VA. 22091

Memorandum

APR 19 1985

To: Secretary

Through: DEPUTY Assistant Secretary - Land and Minerals Management APR 24 1985

From: Director, Minerals Management Service (SGD) WM. D. BETTENBERG

Subject: Decision on Outer Continental Shelf Bid Adequacy Procedures

Introduction

Your concurrence is sought in technical modifications to the current Outer Continental Shelf (OCS) bid adequacy procedures. These procedures were adopted by Secretary Watt in February 1983 and subsequently modified in February, March, and July 1984. At the direction of the Assistant Secretary for Land and Minerals Management, we have analyzed the February 1983 bid adequacy procedures and the February, March, and July 1984 modifications.

The Secretary of the Interior is required by law to assure that the Federal Government receives fair market value for the lands leased and the rights conveyed when leasing OCS mineral resources (see 43 U.S.C. 1334(a)(4) Supplement II 1978). The bid adequacy procedures have been used in 11 sales including the 5 areawide Gulf of Mexico (GOM) sales (Sales 72, 74, 79, 81, and 84). The opinions of the Regional Directors were solicited and their recommendations taken into account in this review.

Background

Throughout the history of the OCS leasing program, receipt of fair market value has been a constantly evolving process. In the late 1960's, the Department of the Interior (DOI) started placing an independent cash value on every tract offered for lease. From the mid-1970's to the present, this tract evaluation process used detailed geological, geophysical, and engineering analyses and a discounted cash flow computer program called MONTCAR to reflect uncertainty in major inputs. During this period, the bid acceptance procedure used by DOI also began blending the Government's independent tract evaluations with market information contained in the bids received to make acceptance/rejection decisions. This blending gives recognition to the concept that fair market value, as a price in a competitive marketplace, should reflect the value placed by the seller on a tract and the values offered by prospective buyers operating in the economic climate prevailing at the time of the lease sale. Starting in 1973, DOI adopted the procedure of using an arithmetic mean of the Government's tract value and the bids received on a tract (average evaluation of tract (AEOT)) to help set the Government's

ENCLOSURE(2)

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reservation price for the tract.[1] With Sale 71, held in October 1982, DOI began using a geometric average evaluation of tract (GAEOT)[2] in place of an arithmetic mean, because it was a better measure of central tendency, increased reliance on the market, and provided an appropriate safety margin for the most prospective tracts in those rare instances where the Minerals Management Service (MMS) estimates of value for a sale deviated substantially from the bidding results.

In July 1982, a Department-wide task force was established to develop and test various methods for determining bid adequacy in light of the legal requirement that the Secretary assure receipt of fair market value in conjunction with the new areawide leasing program which was proposed at that time. In February 1983, the task force's Final Report recommended adoption of a two-phase bid adequacy process which utilized the MMS tract classifications and actual bid data to evaluate tracts receiving bids in order to determine which tracts required detailed analysis and which tracts the competitive market forces could be relied upon to assure receipt of fair market value. Those tracts which could not pass the market-oriented criteria established for the first phase of the process would receive further evaluation via MONTCAR/GAEOT bid adequacy procedures in Phase 2. Assistant Secretary Miller adopted the task force's recommendation and Secretary Watt concurred in his decision on February 22, 1983. Subsequently, on April 21, 1983, bid adequacy guidelines were developed which modified the Phase 2 procedures to include "qualitative" factors that could be used in the bid acceptance/rejection decision, e.g., the number of different companies submitting bids on a tract. If, in the judgment of the Regional Director, a tract was subject to additional delay costs related to expeditious exploration and development or drainage, unusual bidding patterns, or an unusual degree of uncertainty regarding MMS data, he could document what he found and use any of a series of 10 factors (identified as items D through M) to form a basis for a recommendation regarding bid adequacy which differed from a recommendation using the normal MONTCAR/GAEOT procedures.

In February and March 1984, we further modified the bid adequacy guidelines to: (1) discontinue application of the "qualitative" factors labeled D through M in the discussion of the Phase 2 criteria, with the exception of H (drainage costs), until a rigorous procedure was developed for quantitatively applying them; (2) reemphasize that the classification of tracts as nonviable[3] in Phase 1 should occur only when adequate data and maps exist to support such a determination; and (3) eliminate the geometric mean (geomean) of the bids rule in Phase 1. These modifications were first implemented in Sale 83, Navarin Basin (April 17, 1984). Subsequently, in July 1984, we modified the bid adequacy procedures to: (1) give the Regional Director discretionary authority, after consultation and coordination with the Solicitor, to pass tracts identified and documented as having an unusual bidding pattern to Phase 2 for further analysis, and (2) permit review of the viability of all wildcat[4] and proven tracts[5] passed to Phase 2 based on further mapping and/or analysis, using the viability criterion applied in Phase 1 and accept high bids on tracts determined to be nonviable. These modifications were implemented in Sale 84, Western GOM (July 18, 1984).

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[1] The Government's reservation price for a tract represents an estimated dollar value below which a high bid is rejected.

[2] GAEOT: Geometric average of a tract's value, which incorporates the bids on a tract and the Government's evaluation. It is computed by taking the n^{th} plus one root of the product of the n bids and the Government's evaluation.

[3] A tract is viable (prospective) if it is located on a prospect having a most probable conditional resource level (obtained by using most probable inputs from ranges of values for appropriate parameters) that exceeds the minimum economic field size for that particular cost regime.

Current Procedures for OCS Bid Adequacy

The current bid adequacy procedures provide for the application of criteria in a two-phased process for bid adequacy determination.

Phase 1

Phase 1 provides for the application of criteria designed to partition tracts receiving bids into three general categories:

- those receiving bids which MMS has identified as being nonprospective (nonviable);
- those where opportunities for strategic underbidding, information asymmetry, collusion, and other noncompetitive practices might most likely occur and where the Government has the most detailed and reliable data; and
- those where the competitive market forces can be relied upon to assure fair market value.

Based on these categories, the following three Phase 1 criteria are applied to all tracts receiving bids:

1. High bids on all tracts classified by MMS as being either development or drainage will be referred directly for further evaluation in Phase 2.

2. All legal high bids for tracts judged by MMS not to be located on a viable prospect will be accepted.

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[4] A wildcat tract is a tract which is not a drainage, development, or proven tract and whose potential for being productive is completely unexplored.

[5] A proven tract is a previously leased tract which is now expired but contains known oil and/or gas reserves. Volume of reserves may or may not be known.

3. After screening for anomalous bids,[6] all legal high bids will be accepted for prospective (i.e., viable) wildcat and proven tracts receiving three or more bids and more than the average number of bids for prospective tracts bid upon in the sale, i.e., whichever is more.

After applying the Phase 1 criteria for bid acceptance, the Regional Director, if he should determine that an unusual bidding pattern exists and affects tracts which would be accepted by the Phase 1 criteria, and if the unusual bidding pattern can be documented, has the discretionary authority, after consultation and coordination with the Solicitor, to pass those tracts so identified to Phase 2 for further analysis.

Phase 1 is conducted tract-by-tract and is generally completed within 3 days of the bid opening.

Phase 2

Phase 2 provides for the application of criteria designed to further determine bid adequacy on a tract-specific basis. All prospective wildcat and proven tracts which are not accepted in Phase 1 are passed to Phase 2 for further evaluation. After further mapping and/or analysis are completed in Phase 2, the viability determinations of these tracts can be reviewed, using the same procedures to determine viability that were applied in Phase 1. Those wildcat and proven tracts which are subsequently determined to be nonviable can be eliminated from the set of tracts undergoing a full-scale MONTCAR run and the high bids on them accepted. All of the remaining tracts, including all drainage and development tracts, receive further evaluation by comparing the high bids with the mean range of values (MROV), discounted mean range of values (DMROV), and GAEOT. In addition, if in the judgment of the Regional Director a tract is or may be subject to drainage, the relevant costs due to delays associated with bid rejection are considered in the bid adequacy determination. While it is expected that most evaluations would be undertaken based upon geological and geophysical data and analyses available at the time of the sale, additional analyses can be undertaken postsale at the discretion of the Regional Director.

The bid adequacy recommendations developed in Phase 2 are normally completed sequentially over a period ranging between 3 and 60 days after the sale. The Regional Director has the discretionary authority to extend this period up to 90 days after the sale when necessary to assure a thorough evaluation.

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[6] Anomalous bids will not be included in the bid number in either Phase 1 or Phase 2. Anomalous bids include all but the highest bid submitted for a tract by the same company (bidding alone or jointly) and the lowest bid on a tract when it is less than one-eighth of the next lowest bid. The "one-eighth rule" can exclude no more than one bid for a given tract.

Analysis of OCS Bid Adequacy Technical Modifications

Our analysis of the technical modifications is categorized according to criteria for fair market value determinations in Phase 1 and Phase 2 of the postsale evaluation process.

A. Phase 1 Criteria

Phase 1 includes criteria for accepting bids within a 3-day period following a lease sale and criteria for passing tracts to Phase 2 for further evaluation.

1. Use of the Geomean Rule

Current procedures differ from the original bid adequacy procedures which had provided for the use of the geomean rule for bid acceptance in Phase 1. The geomean rule operates to accept bids where the average tract bid (geometric average) is in the upper 50th percentile for designated classes of tracts. It was developed as a means of incorporating market information into the bid adequacy process. Previous analyses indicated that this procedure would have worked well in tract selection sales and, by inference, in the early stages of the areawide leasing program.

The geomean rule was carefully tested using tract selection sale data and was found to be an effective screen for tract evaluations. For example, in the seven GOM tract selection sales held during the period 1980-1982, 10 percent of the rejected tracts (representing 1 percent of all tracts receiving bids) would have been accepted by the geomean rule. However, in four areawide sales (Sale 83, Navarin Basin; Sale 81, Central GOM; Sale 84, Western GOM; and Sale 87, Diapir) held after the geomean rule was discontinued, 26 percent of the rejected tracts (representing 3 percent of all tracts receiving bids) would have been accepted by the geomean rule if it had been applied. The disparity in these results is one reason for recommending that the geomean rule not be reapplied.

There is a great deal of uncertainty about the value of any tract. The value that any one bidder places on a tract is likely to differ from the value another bidder will place on a tract. However, the greater the value a bidder places on a tract, the greater is the probability that another bidder will also find the tract valuable. When an evaluation by one bidder finds something of relatively high value, the level of competition he expects generally increases. The geomean rule was designed to select tracts where the expected, if not the observed, level of competition was high. It was designed to use market information generated at the time of the lease sale in the bid adequacy decisions.

In the five areawide sales (72, 74, 79, 81, and 84) in the GOM, 2,179 tracts received bids. Many of these tracts had been previously offered (all of the tracts in Sales 81 and 84 had been previously offered) and not bid upon or had been relinquished after having been previously leased. Many of the remaining unleased tracts, at least in the GOM, are of more marginal potential, higher risk, and/or higher cost due to being in deep water. The easily identifiable prospects are virtually gone in relatively shallow water. Therefore, we expect to see an increasing number of tracts bid upon which are of interest to only one or two firms or to firms which have a unique or unconventional theory regarding the possibility of a commercial hydrocarbon deposit being present.

In these instances, the median of all bids may not be the statistic best able to screen out those tracts which should receive a further detailed evaluation. A different statistic could be developed such as the median of the high bids on tracts receiving three or more adjusted bids that would still preserve the usefulness of an "expected competition" screen; however, given the observed disparity in results from applying the geomean rule in tract selection sales and the four areawide sales held since the rule was dropped, the expected heterogeneity in geologic potential of tracts bid upon in future offerings, and our improved ability to handle the increased evaluation workload, we think it is appropriate to be somewhat cautious and prepare a detailed evaluation on more tracts. Accordingly, elimination of the geomean rule should be maintained even though it may still be an effective screen.

2. Drainage and Development Tracts

Under current procedures, all tracts identified in Phase 1 as drainage or development are passed to Phase 2. To provide for more expeditious acceptance/rejection decisions on these tracts, we propose to encourage the development of presale MONTCAR inputs on drainage[7] and development tracts[8] and the completion of MONTCAR evaluations in Phase 2 for these tracts concurrently with Phase 1 for proven and wildcat tracts.

3. The Number of Bids Rule

The current number of bids rule provides for the acceptance of high bids on all prospective wildcat and proven tracts if two requirements are met: (1) the prospective wildcat or proven tract receives three or more (adjusted) bids and (2) it receives more than the average number of (adjusted) bids for prospective tracts bid upon in the sale. Computation of (2) requires a viability determination to identify prospective and nonprospective wildcat and proven tracts receiving three or more bids. This effort is unnecessary; in these cases, the market is signaling that at least three evaluators identify the tract as viable. Accordingly, the average number of bids parameter should be computed using, among other things, all wildcat and proven tracts receiving three or more bids.

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[7] A drainage tract is a tract which has a nearby well which is capable of producing oil or gas, and the tract could suffer drainage if and when such a well is placed on production. The reservoir is interpreted to extend under the drainage tract to some extent.

[8] A development tract is a tract which has nearby wells with indicated hydrocarbons and which is not indicated to have a productive reservoir extending under the tract. There should be some indication that some part of the tract is on the same general structure as the proven productive well or wells.

In addition, although the average number of bids parameter is computed for all prospective tracts, including drainage and development, it is used to assess only wildcat and proven tracts. Inclusion of drainage and development tracts in the computation of the average has not affected the magnitude of the average significantly, but it tends to reduce slightly the magnitude of the parameter since, historically, fewer bids are received on drainage and development tracts.

Consequently, we are recommending elimination of drainage and development tracts from the computation of the average number of bids, and calculation of the average number of bids parameter using viable wildcat and proven tracts receiving one or two adjusted bids and all wildcat and proven tracts receiving three or more adjusted bids.

4. Phase 1 Viability Determinations

Current Phase 1 procedures provide for a nonviability determination to be made on all wildcat and proven tracts. These determinations are performed for two reasons. First, it allows removal of tracts that have little or no resources or economic potential from the other market-oriented criterion, i.e., number of bids rule. Second, the Phase 1 nonviability determination allows us to expeditiously issue leases for tracts that MMS considers to have received fair market value. For the reasons discussed under the number of bids rule, we are recommending that nonviability determinations no longer be made on wildcat and proven tracts receiving three or more adjusted bids.

5. Unusual Bidding Patterns

Under the current procedures, the Regional Directors are explicitly delegated the responsibility to identify unusual bidding patterns in Phase 1 and, after consultation and coordination with the Solicitor, to pass those tracts so identified and documented to Phase 2 for further analysis. Under the original procedures, discretionary use of "qualitative" evaluation criteria was provided in Phase 2. These "qualitative" evaluation criteria were suspended until they could be adequately quantified.

We believe that the guidelines should allow for flexibility in the detection of bidding patterns that might evolve from a gaming strategy involving collusion and/or an effort to subvert the market-oriented bid adequacy rules in Phase 1. Since there may be many ways for such bidding patterns to be exercised, it is difficult to develop quantitative rules for handling such situations, assuming they could be identified. Accordingly, until such rules can be developed, the Regional Directors have been given the flexibility in Phase 1 to identify, document, and respond appropriately, after consultation and coordination with the Solicitor, should unusual and anomalous-type bids appear and be identified.

An example of an unusual bidding pattern was discovered in Sale 81. Several companies appeared to have bid consistently on the same tracts. (More careful scrutiny of the bids suggested that this was coincidental and resulted simply from the large number of bids submitted over all tracts in the sale by these companies.) Since this form of bidding behavior is difficult to detect and measure, the Regional Director has been given discretionary authority to pass the involved tracts on to Phase 2 for further evaluation after consultation and coordination with the Solicitor.

A clearly unusual form of bidding was observed in Sale 81, Central GOM and Sale 87, Diapir Field. In these cases, a company submitted two bids on the same tract; it submitted a solo bid and one bid with another company. It is inappropriate to count both bids in determining the number of valid bids on this tract in Phase 1. Thus, the anomalous bid rule was changed to accommodate this situation. In cases where the same company, parent and/or subsidiary[9] (not necessarily having the same name), participates alone or jointly in more than one bid on the same tract, all but the highest of such bids by that entity are considered invalid in computing the number of bids on the tract and the average number of bids parameter in Phase 1.

B. Phase 2 Criteria

The original procedures provided for a MONTCAR evaluation (calculation of the MROV and DMROV)[10] on all tracts passed to Phase 2. The discontinuance of the geomean rule in Phase 1 has increased considerably the evaluation workload in the GOM regional office.

1. Requirement for MONTCAR Evaluation (MROV) on Tracts Passed to Phase 2

During our original analysis of the effects of the discontinuance of the geomean rule in Phase 1 on the Phase 2 workload, we estimated that the resulting percentage of GOM tracts passed to Phase 2 would be 60 percent. Although this prediction was accurate, more tracts received bids in Sale 81 than were anticipated. Our estimate ranged between 300 and 450. The actual number was 529.

To address this increased workload situation, the following procedure (now in place) was developed. It is to simply permit the review of the viability determination of all wildcat and proven tracts passed to Phase 2 based on further mapping and/or analysis. Those tracts which subsequently are determined to be nonviable, using the same viability criterion applied in Phase 1, may be eliminated from the set of tracts undergoing a full-scale MONTCAR evaluation. This procedure eliminates the time associated with doing a MONTCAR evaluation on nonviable tracts and makes more effective use of that time for evaluation of viable tracts. It also allows for earlier acceptance of the high bids on these tracts.

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[9] Subsidiary: a company in which the controlling interest is owned by another company.

[10] MROV: a computer-simulated estimate of the resource economic value of a tract which incorporates a range of values for the prospect with associated probabilities of each value occurring being a direct consequence of the data inputs and uncertainty.
DMROV: the MROV discounted to account for the loss in the present value of bonus, royalty, and windfall profits tax payments associated with not having leased the tract and offering it at the next lease sale in the particular area.

2. Application of the GAEOT

At the present time, upon the completion of a MONTCAR evaluation in Phase 2, a three-step quantitative bid acceptance/rejection procedure is followed. The high bid on a tract is ordinarily accepted if it exceeds any one of three measures (MROV, DMROV, and GAEOT).

The third criterion used in this procedure is designated the GAEOT rule. If the high bid is below both the MROV and DMROV, then the GAEOT is computed. If the high bid exceeds the GAEOT, it is ordinarily accepted.

One purpose of the averaging rule is to recognize that the MMS value estimate may be too high when it exceeds all of the observed bids. Similar recognition of this effect is made by bidders, who adjust their original value estimates based upon expected competition, conditional upon submitting the highest bid.

The averaging rule serves this same function, with the advantage to MMS of being able to actually observe the size of the "losing" bids prior to making this adjustment. When all bids are less than the MMS original value, i.e., the MROV and subsequently the DMROV, this suggests that this estimate might be too high. The averaging rule is employed partly to adjust for this effect.

Another rationale for use of the GAEOT is that it incorporates the economic and geological assessment of all evaluators that submit nonanomalous bids, plus the MMS evaluation, into a measure of central tendency for the underlying probability distribution of tract value. Further, this criterion is "self-weighting," i.e., the importance of the MROV in computing the GAEOT declines as the number of bidders increases. The validity of the GAEOT as a statistical measure is influenced by two important factors: the number of bids and the "quality" of these bids.

In cases where only two adjusted[11] bids are received on a tract, the limited number of observations and the potential information asymmetry may not provide sufficient confidence that the GAEOT is the appropriate measure to use. Three of the four regional offices (Atlantic, Pacific, and GOM) have suggested that the GAEOT be discontinued on tracts receiving two bids. Its application to two-bid tracts results in the paradoxical situation in which the higher the second high bid and the closer it agrees with the high bid, the more likely it becomes that the high bid will be rejected. On the other hand, the greater the divergence of the second high bid from the high bid, the less likely it becomes that the high bid will be rejected using the GAEOT rule.

Application of a statistical averaging measure for use in bid adequacy decisions has evolved over time. Initially in 1974, the arithmetic mean (AEOT) was used in making bid acceptance/rejection decisions based on the rationale that it permitted the blending of the Government's independent tract evaluation (MROV) with the market information contained in the bids received on each particular tract. Originally, it was applied primarily to tracts receiving three or more bids. In 1977, the Bureau of Land Management OCS Managers were given authority to use the GAEOT in lieu of the AEOT if the Managers concluded that the distribution of the evaluations was skewed to the right. In 1978, guidelines allowing for consideration of the AEOT on tracts receiving two bids were promulgated.

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[11] The number of adjusted bids received on a tract is equal to the number of bids received on a tract reduced by any anomalous bids received. For example, a three-bid tract which receives one anomalous bid would become a two (adjusted) bid tract.

Following Sale 59 (Mid-Atlantic, December 1981), when 48 percent of the high bids on tracts receiving bids were rejected using the AEOT, the Office of Policy Analysis studied the issue of incorporating the uncertainty in tract value into the bid adequacy framework. Based on the finding that the GAEOT places more reliance on the market and more properly weights inordinately high MROV's than the AEOT, the GAEOT was adopted for use. It was first applied in Sale 71 and has been consistently applied in all sales to date.

The current analysis of the GAEOT rule focused on its application to tracts receiving two bids because of the concerns discussed above. The following alternatives were considered: (1) continuing use of the GAEOT on all two-bid tracts; (2) eliminating use of the GAEOT entirely for two-bid tracts; and (3) selectively eliminating the GAEOT for certain categories of two-bid tracts.

In the 11 areawide sales held to date, 2,681 tracts received high bids totaling $9,396 million. There were 192 tracts rejected (including 2 which were reneged) having high bids of $392 million. Thus, 7 percent of tracts receiving bids were rejected, representing 4 percent of the high bids received.

Application of the GAEOT to two-bid tracts was directly responsible for accepting 24 tracts having high bids of $105 million. Thus, elimination of the GAEOT rule for two-bid tracts would have increased the tract rejection rate from 7 to 8 percent, while simultaneously increasing the dollar rejection rate from 4 to 5 percent.[12/]

Another option is to eliminate the use of the GAEOT only on two-bid tracts classified as drainage or development. These sets of tracts present the greatest chance of information asymmetries and are the tracts in which we can place most confidence in our own data and tract evaluation measures. Application of this option to the 11 areawide sales would have increased the number of rejected tracts by only 8, while increasing rejected high bids by $52 million.

Based on these statistical findings and the preceding conceptual discussion, we recommend eliminating the use of the GAEOT only on two-bid drainage and

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[12/] The percentage effects of the alternative applications of the GAEOT rule are similar for these 11 sales compared to the 5 sales held after elimination of the geomean rule in Phase 1.

development tracts. In these cases, it appears warranted to place less reliance on the market and more reliance on our own assessment and that of the well informed offset operator, who usually submits the high bid.

3. Application of Qualitative Criteria

The use of "qualitative" criteria (labeled items D through H) in Phase 2 for bid acceptance/rejection decisions were eliminated in March 1984 until rigorous quantitative techniques could be developed. Item H (drainage costs) was maintained for bid adequacy purposes because a quantitative approach for its application was developed.

Since such quantitative criteria have not been developed, the current procedure is being maintained.

C. Summary of Modifications

We believe that the two-stage bid adequacy process continues to provide an effective means of using market-oriented information and independent Government evaluations in determining the adequacy of the bids.

For Phase 1, we analyzed and are recommending changes in the timing of the evaluation of drainage and development tracts; the calculation of the number of bids rule; and the requirement for viability determinations on different types of tracts. For Phase 2, we analyzed and are recommending changes in the application of the GAEOT.

Based on the analysis presented herein, we request your concurrence in the following additional technical modifications to the OCS bid adequacy procedures:

1. Encourage the development of presale MONTCAR inputs for drainage and development tracts, when possible, and completion of MONTCAR evaluations in Phase 2 for such tracts concurrently with Phase 1 evaluations for proven and wildcat tracts.

2. Discontinue nonviability determinations in Phase 1 for wildcat and proven tracts receiving three or more adjusted bids.

3. Calculate the average number of bids parameter in Phase 1 using only viable wildcat and proven tracts receiving one or two adjusted bids and all wildcat and proven tracts receiving three or more adjusted bids.

4. Apply the GAEOT in Phase 2 only to wildcat and proven tracts receiving two adjusted bids and to all tracts receiving three or more adjusted bids.

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Proposed bid adequacy procedures incorporating all of these modifications are attached.

Attachment

Concurrence:

"Ann McLaughlin" MAY 20 1985
Under Secretary of the Interior Date

Proposed Procedures for OCS Bid Adequacy

The bid adequacy procedures provide for the application of criteria in a two-phased process for bid adequacy determination.

Phase 1

Phase 1 provides for the application of criteria designed to partition tracts receiving bids into three general categories:

- those receiving bids which MMS has identified as being nonprospective (nonviable).
- those where opportunities for strategic underbidding, information asymmetry, collusion, and other noncompetitive practices might most likely occur and where the Government has the most detailed and reliable data; and
- those where the competitive market forces can be relied upon to assure fair market value.

Based on these categories, the following three Phase 1 criteria are applied to all tracts receiving bids:

1. High bids on all tracts classified by MMS as being either development or drainage will be referred directly for further evaluation in Phase 2.
2. All legal high bids judged by MMS not to be located on a viable prospect will be accepted.
3. After screening for anomalous bids,[1] all legal high bids will be accepted for wildcat and proven tracts receiving three or more bids and more than the average number of bids for viable wildcat and proven tracts receiving one or two adjusted bids and all wildcat and proven tracts receiving three or more adjusted bids, i.e., whichever is more.

After applying the Phase 1 criteria for bid acceptance, the Regional Director, if he should determine that an unusual bidding pattern exists and affects tracts which would be accepted by the Phase 1 criteria, and if the unusual bidding pattern can be documented, has the discretionary authority, after consultation and coordination with the Solicitor, to pass those tracts so identified to Phase 2 for further analysis.

Phase 1 is conducted tract-by-tract and is generally completed within 3 days of the bid opening.

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[1] Anomalous bids will not be included in the bid number in either Phase 1 or Phase 2. Anomalous bids include all but the highest bid submitted for a tract by the same company (bidding alone or jointly) and the lowest bid on a tract when it is less than one-eighth of the next lowest bid. The "one-eighth rule" can exclude no more than one bid for a given tract.

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Phase 2

Phase 2 provides for the application of criteria designed to further determine bid adequacy on a tract-specific basis. All prospective wildcat and proven tracts which are not accepted in Phase 1 are passed to Phase 2 for further evaluation. After further mapping and/or analysis are completed in Phase 2, the viability determinations of these tracts can be reviewed, using the same procedures to determine viability that were applied in Phase 1. Those wildcat and proven tracts which are subsequently determined to be nonviable can be eliminated from the set of tracts undergoing a full-scale MONTCAR run and the high bids on them accepted. All of the remaining tracts, including all drainage and development tracts, receive further evaluation by comparing the high bids with the mean range of values (MROV) and the discounted mean range of values (DMROV). All tracts in Phase 2 which received three or more adjusted bids and wildcat and proven tracts which received two adjusted bids will be compared to the GAEOT. In addition, if in the judgment of the Regional Director a tract is or may be subject to drainage, the relevant costs due to delays associated with bid rejection are considered in the bid adequacy determination. While it is expected that most evaluations would be undertaken based upon geological and geophysical data and analyses available at the time of the sale, additional analyses can be undertaken postsale at the discretion of the Regional Director.

The bid adequacy recommendations developed in Phase 2 are normally completed sequentially over a period ranging between 3 and 60 days after the sale. The Regional Director has the discretionary authority to extend this period up to 90 days after the sale when necessary to assure a thorough evaluation.

APPENDIX P*

ANALYSIS OF TRACT SELECTION AND AREAWIDE LEASING APPROACHES

Executive Summary

The change in 1983 from tract selection to areawide OCS lease sales caused considerable controversy on several grounds. This appendix analyzes those aspects of the controversy concerning investment and revenues. It evaluates the extent to which experience with areawide leasing has achieved its objectives and borne out the concerns expressed about its effects. It also discusses the implications for the new 5-year leasing program.

The most important conclusions from this analysis are that areawide leasing has caused:

- substantial increases in the investments in leasing and exploration needed to reap the energy and economic benefits of OCS resources;

- a relatively small part of the total decline in bonuses observed in leasing during 1983 and 1984; and

- a substantial increase, perhaps as much as $8.5 million per tract, in the total return to the U.S. Treasury from leasing OCS oil and gas.

Central to the analysis is the concept of the OCS lands as an inventory of investment opportunities. An analytic framework is developed which accounts for changes in the inventory of unleased tracts that can occur as a result of changing economic conditions (particularly oil price expectations), changing geologic knowledge, and the different leasing rates that can occur. The status of the inventory depends not only on the economic and geologic conditions that make prospects valuable, but on the way in which tracts have been sold from the inventory in previous years. Changes in the Government's inventory of unleased tracts are reflected in changes in the characteristics of the tracts sold in subsequent sales. Thus, as sales proceed, the amount of acreage leased, its value, the cash bonus revenue collected by the Government and the subsequent level of investment in exploration would be expected to change as the nature of the unleased inventory changed.

Two key objectives of areawide leasing were to expand the amount and location of acreage leased and to increase the rate of investment in exploration. Critics expressed related concerns that industry did not have the capital to expand its investment and that leases would be acquired, but not explored or developed until years later. This appendix examines data on the experience under tract selection and areawide leasing. It shows that during the 1976-1982 period, leasing and investment in exploration did not expand as price increases made more tracts attractive for investment. As a result, the Government's inventory of unleased acreage worth investing in grew in size and value. Areawide leasing in 1983 and 1984 substantially increased industry's investment in lease acquisition and exploration, particularly in the Gulf of Mexico. There is also evidence that there will continue to be increased exploration investment in the future, based on the exploration plans that have been submitted in recent years.

The buildup of the inventory in the 1976-1982 period and its drawdown in 1983-1984 also had important revenue consequences. Critics of areawide leasing charged that competition would be so thinned by offering much more acreage that bonus bids would decline and the fair market value requirement of Sec. 18(a)(4) would be violated. This appendix shows that the restricted leasing in tract selection sales of the 1976-1980 period increased average bonus bids per acre, primarily by withholding tracts from sale while their value appreciated. Total revenues from bonuses in that period were limited because of the limited amount of acreage leased.

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* An appendix to the Secretarial Issue Document for the upcoming Proposed 5-year OCS Oil and Gas Leasing Program.

ENCLOSURE(3)

In contrast, areawide leasing in 1983, 1984 and 1985 drew down the inventory rapidly. This accelerated leasing resulted in receiving revenues much earlier than would have been the case under tract selection procedures. Bonuses have been received in the 1983-1985 period that would otherwise have been spread out over the 1983-1991 period. Ultimately, royalties and taxes will also be received earlier. This paper estimates that under the actual leasing rates in the Central and Western Gulf of Mexico in 1983 and 1984, bonuses would have to be increased, perhaps by as much as $8.5 million higher per tract, under the leasing rates of tract selection procedures to yield the same present value of revenues as will be realized by the Federal Government from areawide lease sales in those areas.

The draw down in the inventory also resulted in decreasing average bids although total revenues from bonuses increased, particularly in 1983. Fewer high value tracts and more low value tracts were leased in subsequent sales. The trend of decreasing average bids began, however, in 1980, well before the start of areawide leasing. This appendix concludes that such variations in the average bid do not indicate a violation of the fair market value requirement. This provision does not require the Secretary to maximize bonus revenues by withholding tracts while their value appreciates. (In addition,

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A statistical analysis of leasing and bidding data was performed to determine whether and to what extent the implementation of areawide leasing caused a reduction in bonuses. The conclusion from an approach using well accepted statistical techniques is that there is little evidence that areawide leasing was the primary cause of the substantial decline in bonuses. Further analysis using improved data and more sophisticated methods is needed to overcome important limitations identified in this analysis. The results at this stage, in the analysis, however, indicate that the bonus declines associated with areawide leasing were, in all likelihood, smaller than the revenue gains from earlier leasing. There is good evidence that the Treasury will come out ahead.

Using the inventory concept, this appendix shows that if oil prices are expected to be stable and past areawide leasing has drawn down the inventory of unleased acreage, then areawide and tract selection procedures could cause similar types and amounts of acreage to be leased in future sales. The patterns of competition the levels of bids and the implications for meeting the fair market value requirement would also be similar.

If oil prices and price expectations rise, however, tract selection and areawide leasing procedures could yield different results. If tract selection sales withheld leasable tracts while tract values were appreciating, competition would tend to increase as the value of tracts offered rose. Areawide procedures would allow less appreciation in tract values before they drew bids, thus would cause a smaller increase in the number of bidders. The increased competition under tract selection would probably earn greater public confidence, though that would be undercut when the inventory of valuable tracts was depleted again and competition returned to its lower levels.

ANALYSIS OF TRACT SELECTION AND AREAWIDE LEASING APPROACHES

The Pace of OCS Leasing: Investment, Revenue and Fair Market Value Consequences

I. Introduction

The pace of leasing for OCS oil and gas has been a matter of controversy for over a decade, focusing on the size of lease sales and their frequency. Debates arose in 1974 when the Nixon Administration proposed to lease 10 million acres a year in response to OPEC oil price hikes. The acreage actually leased, using Interior's tract selection procedures, did not exceed 2 million acres per year until 1981, the second year of the leasing program approved in 1980. Further controversy arose over the areawide leasing program which Secretary Watt approved in 1982. Under this program 6.6 million acres were leased in 1983. In 1984 7.3 million acres were leased.

The objective of areawide leasing was to allow the private sector a wider choice in the location and the rate of investments in exploration and development of OCS oil and gas prospects. A procedural change was made in order to achieve this objective, allowing the higher leasing rates of 1983 and 1984. The tract selection sale procedures used in prior years had restricted the location and the amount of acreage offered. For tract selection sales, tract value estimates were prepared for all tracts to be offered and were completed prior to the date of the sale. As a result of such administrative constraint, only about half of the tracts nominated by potential bidders were offered in the subsequent sale. The tracts selected from those nominated tended to be those that received nominations from more firms.

The removal of this administrative constraints on the size of lease sales allowed decisions on the acreage to be offered in specific lease sales to be focused on the potential for oil and gas discovery and its benefits on one hand and the potential environmental effects on the other. In particular, it allowed tracts to be offered even though they had modest potential so long as the environmental risks were judged to be in reasonable balance. Firms were not prevented from investing in lease acquisition and exploration in areas for which they had developed unique information about the resource potential unless there was judged to be a substantial environmental risk.

Most of the controversy over the pace of OCS leasing stems from the fear of extensive environmental damage and onshore impacts. The debate, however, has expanded to include a wide range of issues, among them the danger of premature development and the need to conserve resources for future generations, the potential effects of capital limitations on the pace and efficiency of exploration and development, the effect of large lease offerings on the competitive lease sale process and its ability to yield appropriate revenues to the Federal Government, and the administrative work load, particularly in State and local governments, necessitated by larger and more frequent sales.

This appendix focuses primarily on the investment and revenue aspects of the pace of leasing issue. The question of timing of investments, which is fundamental to economically efficient development of OCS oil and gas deposits, is discussed in Appendix F of the Draft Proposed Program, March 1985, Minerals Management Service. As part of the analysis of economic benefits, Appendix F develops economic principles for sequencing development and guidelines for formulating leasing programs that deal with the problems of premature and tardy investments. Issues concerning the administrative workload associated with sales of various sizes and frequencies will be discussed in the SID for the Proposed Leasing Program.

This appendix begins, in Section II, by developing a framework for assessing the investment consequences of different leasing rates. It draws on Appendix F for concepts of the relationship between the timing of investments and resulting economic benefits as well as the economic characteristics of OCS oil and gas resources. This framework is intended to assist in the analysis of the investment experience under tract selection sales of the 1970's and early 1980's and areawide sales of 1983 and 1984. More importantly, it will provide a basis for evaluating the possible consequences of leasing at different rates under the conditions likely to prevail in the 1987-1992 period of the third 5-year program.

The third section of this Appendix applies this framework to the analysis of the investments in lease acquisition and exploration that have occurred as a result of past leasing. It also assesses the implications for the effects of future leasing under procedures ranging from areawide to tract selection.

Section IV develops a framework for assessing the effects of the rate of leasing on Federal revenues and fair market value. It is shown that the total value of Government revenues is likely to have been increased by earlier leasing, perhaps by as much as $8.5 million per tract offsetting declines in bonuses due to areawide leasing. Issues about fair market value are often stated in the form of a charge that a rapid rate of leasing (such as that in 1983 and 1984) thins competition and depresses the cash bonus bids made for OCS leases and thus undermines the Secretary's ability to "assure receipt of fair market value" as he is required to do by the OCS Lands Act (Sec. 18(a)(4)). Section V and VI evaluate the evidence regarding such effects.

The analysis focuses on two comparisons. The results of the areawide lease sales of 1983 and 1984 are compared to the results of tract selection sales in prior years. This analysis shows how the pace of leasing and investment was influenced by sale procedures, world oil prices and previous leasing. In addition, comparisons are made of the likely effects, in the 1986-1991 era, of restricted lease offerings, such as those that resulted from tract selection procedures, and more open lease offerings, such as those under areawide procedures.

II. A Framework for Assessing Investment Consequences

One way to approach the analysis of OCS oil and gas investments is to develop a picture of how investments would be made over an extended period of time if there were no restrictions on OCS leasing and the availability of investment opportunities. If there were no restrictions, environmental damages or adverse onshore impacts and the leasing program operated in a fashion that made acreage available whenever it was seen as a good investment, then the resulting path of investments would reflect the response of oil and gas companies to the conditions that determine the economic attractiveness of OCS prospects. OCS investments would be determined by the same processes that govern investments throughout the economy, including those for oil and gas development on private lands.

The conditions that affect the payoffs from OCS investments include the economic characteristics of OCS oil and gas deposits, the state of geological and geophysical knowledge, and economic conditions and expectations (particularly regarding future oil and gas prices). As discussed in Appendix F, prospects in which oil and gas may be discovered vary substantially, particularly in those characteristics that affect the cost of finding and producing oil and gas. For a given set of expectations about future prices, a lower cost prospect has higher expected economic benefits and higher payoffs from the investments needed to explore and develop the prospect. Some prospects have costs so high that investments are not worthwhile until prices are expected to be higher or until the chance of finding oil has been increased by additional geological and geophysical knowledge.

If one or both of these developments is expected to proceed as time passes, then the OCS can be described as an inventory of ripening investment opportunities. As time passes, increasing prices or emerging resource knowledge gradually make some prospects more attractive for investment. In general, the lowest cost, most easily found prospects become attractive earliest. (In the case of Gulf of Mexico offshore oil, this occurred in the late 1940s and 1950s.) As time passes, exploration reveals the location of most of the large, low cost deposits and higher cost prospects become attractive for investment as oil prices increase or technology reduces costs.

In this picture of the OCS, firms are constantly reviewing the prospects for investment so that any major event, such as the OPEC price increases of 1974 or 1979, that rapidly increases the number of good investment opportunities brings forth a period of greater investment until the freshly ripened opportunities have all been harvested. Similarly, when events reduce the attractiveness of the remaining OCS investment opportunities, the rate of investment is reduced.

In actuality, of course, a variety of administrative, political and legal restrictions have been placed on the availability of OCS prospects for investment. Setting aside the question of whether such restrictions are warranted because of the environmental and onshore effects of OCS oil and gas development, it is possible to examine their consequences for investment.

If OCS tracts are not available for leasing and investment when they become attractive, the inventory of unleased acreage will come to contain more good prospects and their net value will grow larger. (As Appendix F shows, most gains of this type are not sufficient to warrant the delays in investment.) The more restrictive the leasing program, and the longer the period of restriction while oil prices and price expectations increase and geological knowledge of good prospects evolves, the greater would become the number and the value of the unleased prospects attractive for investment. Many unleased tracts would have costs substantially less than the most costly tracts that were economic to develop at that time. Leasing of the better tracts from such an inventory would tend to yield relatively high bids.

Once a sizable inventory of valuable unleased prospects has accumulated, the rates of leasing and investment that could result from unrestricted access are substantial, at least until the inventory has been drawn down. Any institutional rigidities in the capacity to expand investments would tend to temper the response, stretching the draw-down period over a longer time. Eventually, however, the inventory would be depleted of most of the highly valuable prospects that had become over-ripe for investment. Continued unrestricted leasing would then result in more moderate levels of leasing and exploration with periods of expansion and recession in response to changes in economic conditions and expectations.

It is worth noting that the inventory buildup caused by restrictive leasing in mature areas like the Gulf of Mexico would differ from that in frontier areas. As any area matures by undergoing extensive exploration, the early investments tend to lease and find the relatively few large, low cost deposits. As shown in Appendix F, the resource potential remaining in an area that has undergone substantial exploration tends to be located in more numerous smaller prospects that yield fewer economies of scale. Restriction of leasing in a mature area would thus tend to build up an inventory of many moderate to small prospects along with a few larger prospects at the high cost margins of the area where exploration has not yet occurred. The eventual leasing of this inventory of good prospects could involve substantial acreage, most of it with much lower yield potential than that leased earlier. While some tracts would have substantial value, many more would have modest value.

In contrast, a frontier area which, because of its high cost has not been worth exploration investments until substantial price increases occurred, would tend to build up an inventory of relatively few large prospects if leasing did not make acreage available as soon as it became ripe. These few large prospects could hold the potential for a substantial amount of production from a relatively small amount of acreage. Although such an area may also contain many smaller prospects, costs are so high that even after years of delay in initial leasing, prices may not be sufficient to make them ripe for investment.

Thus, unrestricted leasing after a period of restriction would yield far different results in a mature area than in a frontier area. In a mature area, the amount of acreage leased would tend to be quite substantial, though its potential resource yield per acre and its average economic value per acre might be lower. In comparison, unrestricted offerings in a frontier area would tend to lease much less acreage of high resource yield per acre. Its economic value could be substantial in the largest prospects and moderate in large prospects just ripe for investment.

III. Investment Consequences of the Pace of Leasing

One of the key concerns expressed about the pace of OCS leasing through areawide sales is whether it would bring about changes in the rate of investment in OCS exploration and development and the economic returns from production of less costly oil and gas resources. Areawide leasing has been criticized for its inability to overcome capital limitations or change the timing of resource development.

Limitations on the capital available for OCS investments could result if firms active on the OCS could not or would not increase the budget allocated to lease acquisition and exploration and if other firms could not enter the offshore market. Capital limitations would be evidenced by limited increase in the rate of seismic data collection, lease acquisition and exploratory drilling despite the substantially expanded opportunities provided by areawide leasing. Capital limitations would be of concern in the formulation of the third 5-Year leasing program if there was evidence that they would not ease over time and that the number of new prospects that would be made available by the future leasing program would outpace the capital that could be made available.

Areawide leasing was adopted in the 1982 5-Year Leasing Program in order to allow more rapid exploration, discovery and development of OCS oil and gas resources. This decision was based on the evidence that the government's inventory of unleased acreage contained numerous oil and gas prospects of sufficiently high value that they would be economical to develop and produce without waiting for higher oil and gas prices. As Appendix F describes, many such prospects had been economical for some years. Further delays in their development and production would have resulted in lower economic benefits to the nation's economy. There were also prospects, however, that were barely economical to explore or develop. If the 1982 inventory of unleased acreage had been comprised primarily of a moderate number of such low value prospects, then the rate of investment in exploration and development would not have been much affected by the choice of tract selection or areawide leasing so long as both would make available the limited number of prospects that were economic at each point in the 5-year period. If, on the other hand, the unleased inventory in 1983, when areawide sales began, contained a substantial number of good investment prospects, then the rate of investment could be increased substantially by areawide sales. Thus the amount of acreage leased and the bonuses paid can indicate the character of the inventory as areawide leasing began.

To determine whether the shift from tract selection to areawide procedures caused the desired expansion in leasing and investment in exploration, it is useful to examine data for leasing, seismic data collection, and exploratory drilling in an area in which there is substantial data under both procedures. Leasing in the Gulf of Mexico provides the best data for such an analysis. Since there has been insufficient time for lessees to complete the sequence of discoveries and development, it is not possible to determine empirically whether development investments have increased. It is possible, however, to assess the relationship between exploratory drilling investments and the expected timing of development investments. The cost of capital limits the number of years that firms will be willing to invest in exploratory drilling in advance of the time they expect to be able to develop profitably the oil and gas deposits they expect to find. Similarly, because the leases are limited to 5 years and in deep water, 10 years, firms will not acquire leases that they do not expect to be economical to explore within these time frames.

A. Lease Availability and Acquisition

Table 1 shows the acres offered, the acres leased and the cash bonuses collected in each year, separating the tract selection and areawide sales as of May 1983. In the Central and Western Gulf of Mexico, leasing proceeded

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Table 1

Rate of Lease Acquisition

(acreage in millions, bonuses in billions of dollars)

	C & W Gulf of Mexico			Other Areas		
Year	Acres Offered	Acres Leased	Total Bonuses	Acres Offered	Acres Leased	Total Bonuses
1972	1.0	.8	2.3			
1973	1.2	1.0	3.1			
1974	5.0	1.8	5.0			
1975	6.0	1.4	.7	1.3	.3	.4
1976	.9	.3	.5	1.9	.9	1.6
1977	1.1	.6	1.2	.8	.5	.4
1978	1.9	1.1	1.7	1.3	.2	.1
1979	1.2	.8	[illegible].2	2.2	1.0	1.9
1980	1.4	.9	4.1	1.2	.2	.1
1981	2.2	1.3	3.9	5.5	1.0	6.5
1982	2.0	.9	1.8	5.7	1.0	2.2
1983						
TS	.7	.1	-	5.1	.9	.7
AW	70.5	5.3	4.9	43.8	.3	.1
1984	64.8	4.8	2.2	39.0	2.4	1.6

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under the tract selection procedures at a rate of about 1 million acres per year during the late 1970s and early 1980s. Almost twice as much acreage was offered, about 1.7 million acres per year. Despite the nomination and tract selection process, only half of the acreage selected as promising 20-some months prior to each sale proved worth bidding upon after further evaluation. Areawide leasing expanded the acreage offered in the Gulf of Mexico by a factor of 35. Acreage leased expanded from 1 million acres per year to about 5 million acres. This shows a very substantial increase in the amount of acreage evaluated, bid upon and transferred into the lease portfolios of offshore firms. It confirms the buildup of a sizeable inventory of good prospects and shows a substantial investment in response to their availability.

In all other areas combined, lease offerings averaged about 3 million acres per year over the 1978-1982 period with leasing at about 0.7 million acres per year. Areawide leasing expanded the acreage offered in other areas to about 40 million acres in 1983 and 1984 with leasing of a total of 2.7 million acres. As expected, the amount of valuable acreage built up in the Government's inventory was less in these mostly frontier areas.

The extent of the capital investment made by these firms in acquiring leases can be judged by examining the bonuses paid. Under tract selection procedures, bonuses for Gulf of Mexico leases were about $3 billion per year in the late 1970s and early 1980s, though they had dropped to half their 1980 peak by 1982. Under areawide procedures, total bonuses paid increased to nearly $5 billion and then fell off to $2 billion. It is worth noting that the substantial increase occurred in 1983, a year in which oil industry net income, the major source of capital, had dropped 27 percent from peak levels of $29.3 billion in 1980 to $21.3 billion.[1] Total bonuses in the first round of areawide sales were nearly equal to the total net economic value of the resources estimated to be leased in Appendix 2 of the March 1982 SID for the 1982 5-Year Leasing Program. Because bonuses paid are estimated to be about 40 percent of net economic value in the Gulf of Mexico, this implies that industry leased about 2.5 times as much in 1983 as had been estimated.

Analysis by the MMS estimates that about 10 percent of the unleased undiscovered recoverable resource thought to be in the Gulf of Mexico areas in 1982 was leased in 1983 and another 7 percent was leased in 1984. This is about three times the portion that was estimated to be leased, which is fairly consistent with the estimate derived by comparing bonuses to net economic value. Evidently, the petroleum industry was willing to invest more in the acquisition of leases than had been anticipated.

An important trend in leasing in the Gulf of Mexico is the shift to acreage in deeper water. As Table 2 shows, this trend accelerated with the implementation of areawide leasing which offered much more deep water acreage. This trend shows a potential for substantially increased investment in exploration and development because of the higher costs of drilling in deep water. It also demonstrates the success of areawide leasing in widening the search for oil and gas.

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[1] Data for the top 24 oil companies from the American Petroleum Institute, October 1984.

Table 2

Leasing by Water Depth

Gulf of Mexico OCS Lease Sales
9/80 through 4/84

	Number (Percent) of Tracts Leased by Water Depth			
Sale (Date)	Total	Less Than 200 Meters	200-400 Meters	Greater Than 400 Meters
A62 (9/30/80)	116 (100%)	106 (91%)	4 (4%)	6 (5%)
62 (11/28/80)	67 (100%)	64 (96%)	0 (0%)	3 (4%)
A66 (7/21/81)	156 (100%)	147 (94%)	4 (3%)	5 (3%)
66 (10/20/81)	102 (100%)	91 (89%)	9 (9%)	2 (2%)
67 (2/9/82)	115 (100%)	97 (84%)	10 (9%)	8 (7%)
69 I (11/17/82)	56 (100%)	50 (89%)	4 (7%)	2 (4%)
69 II (3/8/83)	11 (100%)	11 (100%)	0 (0%)	0 (0%)
72 (5/25/83)	623 (100%)	490 (79%)	72 (12%)	61 (10%)
74 (8/24/83)	406 (100%)	309 (76%)	55 (14%)	42 (10%)
79 (1/5/84)	156 (100%)	109 (70%)	24 (15%)	23 (15%)
81 (4/24/84)	453 (100%)	258 (57%)	30 (7%)	165 (36%)
84 (7/18/84)	361 (100%)	221 (61%)	61 (17%)	79 (22%)

B. Inventory Buildup and Depletion

The lease sales in the Gulf of Mexico provide a good basis for examining trends in the value of acreage being leased. Since leasing tends to focus on the most valuable acreage, particularly if the acreage offered is limited, the average value can suggest the extent to which the inventory of unleased tracts is appreciating. In general, the greater the value of the tracts leased, the greater has been the extent of appreciation that has occurred before the acreage was offered. Table 3 shows the trends in the average of high bids on tracts leased in each year from 1970 on.

The average of high bids is not a perfect indicator of the economic value of the tracts leased. If changes in competition allow firms to bid a smaller fraction of the value they see in a tract and still win the lease, then the average of high bids will decline relative to average economic value. The average of high bids is also subject to inflation effects which could mask changes in real economic value. Isolating the various factors that affect bid levels is a complex analytical task. Such a study is provided in Section VI.

The early history of leasing in the Gulf of Mexico shows the average of high bonus bids was generally less than $500 per acre, except for sales of drainage tracts for which nearby drilling had confirmed the presence of a commercial deposit. None of the wildcat lease sales of the 1950s and 1960s exceeded $1,000 per acre, despite the fact that exploratory drilling during that time yielded discoveries containing most of the oil and gas that has been discovered to date.

In the 1970s however, the average of high bids increased as OPEC began to exert its price setting power. The early 1970s saw the average of high bids in the $2,000 per acre range, increasing to nearly $5,000 per acre in 1974. Efforts to increase OCS leasing yielded relatively larger offerings in the Gulf of Mexico, reaching 5 million acres in 1974 and 6 million acres in 1975. As a result, a total of 3 million acres were leased in 1974 and 1975 combined. The average of high bids declined sharply to about $500 per acre in 1975.

The 1974-1975 decline in the average of high bids could have been caused by dilution of competition, by leasing more moderately valued tracts along with the higher valued tracts, or by depletion of the unleased inventory through leasing of the limited number of prospects that had been made highly valuable by the OPEC price increases. The trend in the average of high bids in the next 3 years, 1976-1978, gives evidence that the inventory had been substantially depleted of the highly valuable tracts that had emerged early in 1974. The average stayed substantially below the 1974 $5000 per acre peak during the 1976 through 1978 period when the acreage offered averaged about 1.3 million acres per year.

Thus, when lease offerings had returned to their pre-1973 size and, presumably, to their pre-1973 levels of competition, the better tracts being leased were similar in value to those being leased at the turn of the decade. The increased pace of leasing in 1974 and 1975 allowed acquisition of the valuable prospects that resulted from the appreciation effect of higher oil prices.

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Table 3

Trends in Average of High Bonus Bids
(dollars per acre)

	Gulf of Mexico		California		Atlantic		Alaska	
Year	Sale	Average Bonus Per Acre	Sale	Average Bonus Per Acre	Sale	Average Bonus Per Acre	Sale	Average Bonus Per Acre
1970	21	2,190						
	22	1,530						
1971	23	2,587						
1972	24	2,018						
	25	3,108						
1973	26	2,908						
	32	3,072						
1974	33	4,968						
	34	2,605						
	S1	302						
	36	2,248						
1975	37	438	35	1,346				
	38	572						
	38A	485						
1976	41	1,091			40	2,130	39	1,369
	44	2,129						
1977	47	1,933					CI	805
1978	45	1,672			43	412		
	65	304						
	51	2,113						
1979	58	3,189	48	1,987	49	180	BF	5,800
	58A	4,539			42	2,277		
1980	A62	4,853					55	551
	62	3,699						
1981	A66	3,312	53	6,393	46	1,218	60	60
	66	2,446			59	1,115		
1982	67	2,022	68	669			71	3,101
	69(1)	2,166						
1983	69(2)	646	73	366	76	325	57	946
	72	1,090			78	213	70	780
	74	668						
1984	79	346	80	543			83	609
	81	581					87	722
	84	433						

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The trend in the average of high bids indicates a second period of inventory buildup during the 1978-1980 period. Gulf of Mexico lease sales during this time offered an average of 1.5 million acres per year. The average of high bids peaked in 1980 at nearly $5,000 per acre just as oil prices and oil price expectations peaked. During 1981 and 1982, world oil prices and oil price expectations declined. Gulf of Mexico lease sales increased slightly to about 2 million acres per year offered and 1 million leased while the average of high bids declined gradually to about $2,000 per acre. Thus the 5 years before areawide leasing saw about 5 million acres leased while the average rose from about $2,000 per acre to nearly $5,000 per acre and then declined back to $2,000 per acre.

The average high bid for an OCS sale can be strongly influenced by a few very high value tracts, particularly in the smaller, tract selection sales. While the average would indicate the influence of the best tracts leased in each sale, the chance inclusion of very high value tracts in some sales and not in others that can be caused by emerging exploration results can make the average high bid a less useful measure of trends. (This is the case, for example, in Sale 53 which had an average bonus of $6,393 per acre.)

The median of high bids is less subject to the extremely high values of a few tracts. (The median is the middle value in a ranked list of values.) The medians of high bids for Gulf of Mexico sales since 1979 are shown in Table 6. The peak median high bid occurred in 1979. Significant decreases in the median high bid occurred from 1979 to 1982 as well as in 1983 and 1984.

Estimates made in late 1981 and early 1982 for the second 5-year leasing program indicated unleased oil and gas resources in the Central and Western Gulf of Mexico of 15.6 billion BOE and a net economic value of about $200 billion. These estimates, together with the relatively high average bids during the previous 4 years, suggest that the Government had built up a substantial inventory of tracts worthy of investment.

The extent of leasing in 1983 and 1984, despite significant further decreases in world oil prices and price expectations, confirms the existence of a substantial unleased inventory in 1982. The areawide lease sales in the Central and Western Gulf leased over 10 million acres in these 2 years. This was equal to the total amount of Gulf of Mexico acreage leased over the previous 12 years. Since lease values would not have appreciated, except because of new geological knowledge, during the price declines between 1981 and 1984, it is clear that most of the acreage leased in 1983 and 1984 was ripe for investment and, from an economic viewpoint, should have been leased in 1979 or 1980 if not before.

The evidence of buildup in the unleased inventory in other OCS areas is not as dramatic as it was in the Gulf of Mexico. The increase in acreage leased is not great though it is significant in value. Early frontier area sales in Atlantic and Alaska areas yielded average high bids substantially higher than sales at a comparable point in the history of Gulf of Mexico leasing. Lease sales 40 and 42 in the Mid- and North Atlantic areas yielded average high bids of more than $2,000 per acre. The first sales in the Beaufort Sea had averages of $5,000 and $3,100 per acre. Values so much higher than the $500 per acre level of initial Gulf of Mexico leases are strong evidence that the

Table 4

Trends in the Median of High Bonus Bids

(dollars per acre)

Gulf of Mexico Sales

Year	Sale	Median Bonus Per Acre
1979	58	1,561
	58A	2,529
1980	A62	1,982
	62	2,231
1981	A66	1,726
	66	958
1982	67	844
	69(1)	775
1983	72	473
	74	390
1984	81	282
	84	267

best prospects in the Government's inventory of tracts in these frontier areas had appreciated substantially in value before they were offered.

Interpretation of trends in bids is complicated by the fact that an average is sensitive to the mixture of tracts sold. Relatively small offerings composed of tracts of sufficiently good prospects to have been nominated by a number of firms, would yield higher averages than much larger sales from the same inventory of tracts even if the bids were not affected by the size of the offering. A larger sale with more low value tracts added into the total along with the fewer high value tracts that would have been leased in a smaller sale would have a lower average bonus. The average of high bids would only provide strong evidence of an inventory buildup for sales of comparable size and selection. With the exception of the larger Gulf of Mexico sales in 1974 and 1975, the lease sales of the 1970s were comparable in this respect.

C. Exploration Investments in the Gulf of Mexico

Since areawide leasing was initiated, five of the ten such lease sales held through 1984 have been held in the Gulf of Mexico. Approximately 2 years have passed since OCS Lease Sale 72, the first areawide Central Gulf of Mexico lease sale was held on May 25, 1983. Subsequent areawide sales were held in the Western Gulf of Mexico on August 24, 1983, and July 18, 1984, and in the Eastern Gulf of Mexico on January 5, 1984, and in the Central Gulf on April 24, 1984.

The exploration process begins with the collection of geological and geophysical data using primarily seismic techniques. These data are used to identify unleased tracts with good prospects for the discovery of oil and gas. Data collection in the Gulf of Mexico had been occurring typically at the rate of about 150,000 miles of seismic data per year during the 1978-1981 period. In 1982, in anticipation of the areawide lease sales in 1983, it rose to nearly 380,000 miles. In 1983, it was over 295,000 miles. These substantial investments in data collection were made in an area that was already among the most intensively studied in the world. It tends to show that the oil industry believed in 1982 and 1983, that there was an extensive inventory of acreage worth considering.

Drilling and discovery data are now available for leases issued in the Central and Western Gulf, Lease Sales 72 and 74, respectively, as a result of the areawide sales. These data, analyzed by staff economists at the MMS Gulf of Mexico Region Office, provide a comparison of the exploration activity on leases issued for areawide and tract selection sales in the Central and Western Gulf.

One difficulty in making comparisons between tract selection and areawide sales is in the variation in the time available for drilling activities. The data presented in the analysis and tables below are current as of April 1, 1985. It is obvious that leases issued from Lease Sale 58, held July 3, 1979, have been in force for a period of more than 5 years and it may be expected that more activity would occur on those leases than on those issued in 1983.

In order to provide some basis of comparison for leases with different time spans between lease issuance and the cutoff date of April 1, 1985, the following procedure was adopted. All data on tracts showing progress in drilling and discovery were compiled for a specific lease sale and a percentage of the total number of tracts in the sale showing progress was computed. Each of these percentages was divided by the period of time between the lease sale and the cutoff date, yielding an average annual percentage. Comparison of the average annual percentages provide an approximate indication of the differences that may exist between tract selection sales and areawide sales, after removing some of the differences that are due to the longer period of exploration and development time available to the tract selection sales.

Three comparison tables were prepared. First, a comparison of the tracts on which drilling has taken place as a percentage of tracts leased for Gulf of Mexico sales from 1979 through 1983. Second, a comparison of new productive leases as a percentage of tracts drilled for the same areas and same time period. Third, a comparison of tracts classified as new field discoveries as a percentage of tracts drilled for the same areas and same time period.

Table 5 contains a summary of exploratory drilling activity by both individual sales and on an annual basis. All of the sales between 1979 and 1982 were tract selection sales and the 1983 sales were areawide. The annual average percentages indicate that, in the Gulf of Mexico, lessees tend to drill each year approximately 16 percent of the leases acquired in a given lease sale until approximately 85 percent of the leases have been drilled. The remainder of the acquired leases remain undrilled. The average annual percentage for areawide Sales 72 and 74 are in accord with the similar averages pertaining to the tract selection sales. The Sale 81 and 84 average is less; however, since relatively little drilling can occur in the first few months of a lease, this average probably reflects the short period in which Sale 81 and 84 leases have been active as of the time of this data. In addition sale 81 and 84 leases were issued about 2.5 months after the sale while the other leases were issued within a couple of weeks of a sale. The Sale 69 tracts show a greater than average rate of exploration. This may be due to the above average potential of those tracts. It may also be the result of drilling efforts in preparation for the areawide sales planned for 1983 and 1984.

The rate of progress in drilling on leases issued in areawide sales thus appears to be about the same as the long run rate of drilling on leases from tract selection sales despite the fact that almost 10 times as many tracts were leased. The increased acquisition of leases in Sales 72 and 74 has been followed by an increased investment in exploratory drilling. The increase in the pace of investment is particularly apparent in the yearly data with about twice as many 1983 tracts drilled as have been drilled, on average, on tracts leased in 1979-1982 sales, despite the shorter time since the 1983 lease sales.

Table 6 contains a summary of new productive leases as a percenage of leases drilled. The percentage of tracts drilled that are productive is lower for areawide sales than for tract selection sales. One reason is that even when oil or gas is found on a tract it is not necessarily the first well that is productive. Later wells on a tract may prove productive and the percentage will increase. Another reason is that there were more marginaltracts leased in the areawide sales and the percentage is expected to be lowe.

Table 5

Gulf of Mexico Exploratory Drilling Activity

A. By Sale

Sale	Date	Tracts Leased	Tracts Drilled	Percent of Leased Tracts Drilled	Years Active[1]	Average Annual Percentage (Col.5/Col.6)
58	07/03/79	81	75	92.6	5.7	16.2
58A	11/17/79	90	75	83.3	5.3	15.7
A62	09/30/80	116	85	73.3	4.5	16.3
62	11/18/80	67	43	64.2	4.3	14.9
A66	07/21/81	156	82	52.6	3.6	14.6
66	10/20/81	102	50	49.0	3.5	14.0
67	02/09/82	115	47	40.9	3.2	12.8
69	11/17/82	56	29	51.8	2.4	21.6
69A[2]	03/08/83	11	6	54.5	2.1	26.0
72	05/25/83	623	191	30.7	1.8	17.1
74	08/24/83	408	111	27.2	1.6	17.0
79	01/05/84	156	1	0.6	1.2	0.5
81	04/24/84	453	22	4.9	0.9	5.4
84	07/18/84	361	4	1.1	0.7	1.6

B. By Year

Year	Sales	Tracts Leased	Tracts Drilled	Percent of Leased Tracts Drilled	Average Years Active[4]	Average Annual Percentage (Col.5/Col.6)
1979	(58,58A)	171	150	87.7	5.5	15.9
1980	(A62,62)	183	128	69.9	4.4	15.9
1981	(A66,66)	258	132	51.2	3.6	14.2
1982[2]	(67,69,69A)	182	82	45.0	2.8	16.1
1983[3]	(72,74,79)	1187	303	25.5	1.7	15.0
1984	(81,84)	814	26	3.2	0.9	3.6

[1] Number of years that leases from sale have been in effect as of 4/1/85 when drilling data was compiled.

[2] Sale 69A, a tract selection sale, was held early in 1983 but is included with the major portion of Sale 69.

[3] Sale 79, an areawide sale, was planned for 1983, but was delayed until early 1984. It is included herein with the other 1983 sales.

[4] Average among sales weighted by number of tracts drilled.

Table 6

Gulf of Mexico New Productive Leases

A. By Sale

Sale	Tracts Drilled	Productive Tracts	Percent of Drilled Tracts That Are Productive	Years Active[1]	Average Annual Percentage (Col.4/Col.5)
58	75	37	49.3	5.7	8.6
58A	75	39	52.0	5.3	9.8
A62	85	43	50.6	4.5	11.2
62	43	15	34.9	4.3	8.1
A66	82	36	43.9	3.6	12.2
66	50	21	42.0	3.5	12.0
67	47	19	40.4	3.2	12.6
69	29	9	31.0	2.4	12.9
69A	6	0	-	2.1	-
72	191	59	30.9	1.8	17.2
74	111	33	29.7	1.6	18.6
79	1	0	-	1.2	-
81	22	6	27.3	0.9	30.3
84	4	0	-	0.7	-

B. By Year

Year	Sales	Tracts Drilled	Productive Tracts	Percent of Drilled Tracts That Are Productive	Average Years Active[2]	Average Annual Percentage (Col.5/Col.6)
1979	(58,58A)	150	76	50.7	5.5	9.2
1980	(A62,62)	128	58	45.3	4.4	10.3
1981	(A66,66)	132	57	43.2	3.6	12.0
1982	(67,69,69A)	82	28	34.1	2.8	12.2
1983	(72,74,79)	303	92	30.4	1.7	17.9
1984	(81,84)	26	6	23.1	0.9	25.7

[1] Number of years that leases from sale have been in effect as of 4/1/85.

[2] Average among sales weighted by number of tracts drilled.

Table 7 contains a summary of new field discoveries as a percentage of leases drilled. The areawide sales in 1983 have a higher rate of new field discoveries than most of the previous tract selection sales. In fact, the new field discoveries from the 1983 sales is about the same as new field discoveries from sales in 1980-1982.

The data shown on these tables cover a period of relatively abrupt changes in the market prices for oil and gas, as well as expectations regarding future prices, which may be reflected in drilling and production activities. Crude oil prices and expectations increased from 1979 through 1981 and subsequently declined, and natural gas prices came under downward pressure early in 1983. These trends would tend to dampen drilling investments in 1982 and 1983. Thus, the increased rate of drilling on the tracts leased in 1983 areawide sales is despite, rather than because of, the trends in oil prices.

The average annual percentages on Tables 5, 6 and 7 are somewhat affected by the differences in the ages of the leases from each sale. In the tract selection sales, 25-35 percent of the tracts were drilled in the first year after issuance of a lease. In the second year after issuance, 35-65 percent of the tracts in the tract selection sales were drilled. In sale 72, 31 percent of the tracts were drilled 23 months after the sale. In sale 74, 27 percent of the tracts were drilled 19 months after the sale. The average annual percentages therefore somewhat overstate the drilling from areawide sales relative to tract selection sales.

Nevertheless, this comparison of postlease exploration activity suggests that areawide leasing has had a favorable effect on investment. Although leases resulting from areawide lease Sales 72 and 74 have been in existence only about two years, drilling activity, based on number of leases drilled, seems to be proceeding at a high rate. At the time of the analysis (April 1985), Sale 72 had been held less than 2 years earlier, and more Sale 72 leases had been drilled than leases from any other sale studied. Similarly, more Sale 74 leases had been drilled in their first year than in the any period of any tract selection lease sale studied.

The current level of investment in exploratory drilling can also be measured by the number of drilling rigs active. In the Gulf of Mexico, there were almost 200 rigs active in late 1984. This is an increase from a low of about 120 during the summer of 1983 as the first areawide sales were occurring. This is a record level of drilling activity in the Gulf of Mexico and is counter to the trend of world oil prices in 1983 and 1984.

Lessees' intentions to invest in exploratory drilling can be gauged by the exploration plans they have filed to gain the necessary permits from the MMS. During the period of 1978-1982, Gulf of Mexico exploration plans were filed at an average rate of about 450 per year. Filings in 1983 were over 500 and in 1984 they reached 800. This demonstrates the likelihood that investments in exploratory drilling will continue in 1985 at a rate similar to or greater than the rate in 1984.

The issue that arises in formulation of the third 5-Year OCS Leasing Program is the effect of offering tracts at different rates during the 1986-1991 period upon the rate and sequence of future investments in exploration and

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Table 7

Gulf of Mexico New Field Discoveries

A. By Sale

Sale	Date	Tracts Drilled	New Field Discoveries	Percentage of Drilled Tracts with Discoveries	Years Active[1]	Average Annual Percentage (Col.5/Col.6)
58	07/03/79	75	7	9.3	5.7	1.6
58A	11/27/79	75	12	16.0	5.3	3.0
A62	09/30/80	85	10	11.8	4.5	2.6
62	11/18/80	43	9	20.9	4.3	4.9
A66	07/21/81	82	16	19.5	3.6	5.4
66	10/20/81	50	13	26.0	3.5	7.4
67	02/09/82	47	11	23.4	3.2	7.3
69	11/17/82	29	3	10.3	2.4	4.3
69A	03/08/83	6	0	0	2.1	0
72	05/25/83	191	39	20.4	1.8	11.3
74	08/24/83	111	22	19.8	1.6	12.4
79	01/05/84	1	0	0	1.2	0
81	04/24/84	22	1	4.5	0.9	5.0
84	07/18/84	4	0	0	0.7	0

B. By Year

Year	Sales	Tracts Drilled	New Field Disc.	Percentage of Drilled Tracts with Discoveries	Average Years Active[2]	Average Annual Percentage
1979	(58,58A)	150	19	12.7	5.5	2.6
1980	(A62,62)	128	19	14.8	4.4	3.4
1981	(A66,66)	132	29	22.0	3.6	6.1
1982	(67,69,69A)	82	14	17.1	2.8	6.1
1983	(72,74,79)	303	61	20.1	1.7	11.8
1984	(81,84)	26	1	3.8	0.9	4.2

[1] Number of years that leases from sale have been in effect as of 4/1/85.
[2] Average among sales weighted by number of tracts drilled.

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development. Both price expectations and the inventory of unleased tracts will be different in 1986 than they were in 1982. During a period of lower expectations about future oil and gas prices with leasing from an inventory that has been substantially depleted of promising new prospects, the differences in investment under restricted acreage offerings as compared to wider offerings would be narrowed. The total acreage leased could tend to be similar, since the amount of prospective unleased acreage at the time of each sale would be moderate. Under either restricted offerings or large offerings, however, both the Federal Government and investors must evaluate the whole area to find promising prospects. The ability of restricted offerings to achieve similar investment results of large offerings requires the Government to locate all prospects ready for investment. Larger offerings allow more flexibility for bidding to adjust to information produced in the months between the sale and the time at which the limited acreage to be offered would have been selected. Wider offerings also provide more flexibility to increase rapidly the amount of acreage leased if oil prices increase rapidly again. This could be particularly true if the administrative processes for restricted sales were to be accompanied by reduced administrative capacity (budget and manpower), placing constraints on increases in the acreage to be offered.

The differences in investments under restricted and wider offerings would tend to increase whenever changing conditions caused a substantial inventory of prospects worthy of investment to accumulate amidst unleased acreage. Larger offerings would allow investments in lease acquisition, exploration and development to adjust quickly to changing conditions, removing good prospects from the unleased inventory relatively sooner after their emergence than would restricted offerings.

The tract selection procedures of the 1970s made it difficult to increase the acreage offered when conditions warranted. The leasing experience of the 1970s shows that the longer the restriction in the availability of prospective acreage, the greater is the buildup of demand for investment and the greater the potential jump in the rate of investment when acreage is finally made available. The rapid increases in seismic evaluation, acreage leased and exploratory drilling in 1983 and 1984 could have been smoothed out over 5 or 6 years had more acreage been made available starting in 1977 or 1978. It is ironic that the heavy investments in 1983 and 1984 came just as world oil prices were declining, putting much of this investment "out of phase" with potential returns. Had more acreage been made available in 1980 and 1981, the expected net economic value, the government revenue, and the expected private returns could all have been higher. Had it been available in 1977 and 1978, before the peak in oil prices, many of the actual investments would have been more timely and efficient, though government revenues in (nominal dollars, undiscounted) could have been somewhat less than they would have been in 1980.

In summary, the investment consequences of differences in the pace of lease offerings will tend to be greater the more rapid and extensive are the changes in oil price expectations and geological knowledge in the future. Restricted offerings tend to perform adequately in a relatively stable world while wider offerings allow more flexibility for investments to adapt to changing conditions.

IV. A Framework for Assessing Revenue and Fair Market Value Consequences

A substantial part of the controversy over more rapid OCS leasing has been the charge that it reduces Federal lease revenues and violates the requirement to assure receipt of fair market value. To address this concern, it is appropriate to review the relationship between the pace of leasing, the bidding for leases, the resulting revenues and the fair market value requirement. This section discusses these relationships.

These relationships are complicated by the fact that there are different forms of Federal revenue. The lease revenues include cash bonuses, rentals and royalties. The cash bonuses paid at the time leases are issued are the most well-known form. Rental fees are relatively small annual payments made by the lessee. Royalties are collected years after leases are issued, being a percentage of the value of the oil and gas produced. In addition to lease revenues, any profits lessees make contribute to the firm's taxable income and presumably its tax payments to the Federal Government. (Income tax revenues, of course are collected by the Internal Revenue Service and are not accounted for on a lease-by-lease basis.)

The cash bonus paid for a specific tract can be affected by geologic and economic conditions that affect its net economic value as well as conditions that affect the portion of its perceived value that firms are willing to bid. Since the pace of lease offerings in general can affect the time at which a tract gets leased and the state of knowledge about the geologic and economic conditions during which it gets leased, the pace can affect a tract's net economic value. Similarly, the pace of leasing can affect the portions of tract values that firms bid. Thus the pace of leasing can cause the amount of bonus paid for a specific tract to be higher or lower.

The pace of lease offerings also affects the number of tracts leased in a given sale or period and, as discussed in sections II and III, the mix of tracts of different values that is leased. The total bonus revenues in a sale or period can be greater if more tracts are leased, or if higher value tracts are leased. It is possible for total bonus revenues to increase despite the fact that the bonuses for specific tracts are less than they could have been under different circumstances. The reverse is also true, namely that total bonus revenues can decrease while bonuses for specific tracts are more than they would be.

Royalty and tax revenues can be affected by the pace of leasing because the pace, in part, determines the timing of the investments needed for production to occur. In general, these downstream revenues will occur earlier when leases are issued earlier. If resource and price expectations are borne out by exploration and future events, the leasing of more acreage in the present means higher royalty and tax revenues in the period 5 to 25 years from the present.

In fact, differences in the pace of leasing mean differences in the timing of revenues of all forms. To assess the revenue effects of different leasing rates, it is necessary to account for the fact that having tracts leased in one period means they will not be leased (at least until relinquished) in any later period. Increased leasing in the present tends to shift the revenues to be derived from the Government's land forward in time at the expense of revenues in later periods.

Discounting to present value is the appropriate method for measuring the effects of such revenue shifts just as it is for assessing the effects of timing on net economic value (see Appendix F). This adjustment allows for the benefits of earlier revenues to be weighed against decreases in the undiscounted amounts that may also result. For example, a $2 million bonus today is equivalent in present value terms (at an 8 percent discount rate) to a bonus of $2.7 million 4 years from today, and to a $3.7 million bonus 8 years from today. A $5 million bonus today is equivalent to a bonus of $6.8 million in 4 years and a $9.3 million bonus in 8 years. A bonus 9 years from today would have to be twice as much as a bonus today to be equal in present value terms.

Thus, in formulating a leasing program it is useful to analyze the extent to which various factors affect bonus bids and other forms of revenue. In particular, it is important to separate the revenue effects of the time at which leases are sold, the tract characteristics and economic conditions from the effects of the pace of leasing on the competitive bidding process. While the time at which various tracts are leased affects Government revenues, it also affects the way in which the development of OCS oil and gas resources meets the energy and economic needs of the Nation. Such revenue effects should be considered in light of these basic objectives. As will be discussed below, however, the effects of the pace of leasing on the competitive bidding process may also affect assurance of fair market value.

Appendix K sets forth the legal and economic meaning of the fair market value requirement and describes the policies and procedures now in effect for meeting that requirement. The primary concept is that the fair market value of a property is determined by reference to the price it would bring in a competitive market through transactions between knowledgeable and willing buyers and sellers. In the absence of market prices, or if the competitive bidding process is so flawed that market prices cannot indicate fair market value, other means of determining or assuring fair market value are used. The MMS bid adequacy procedures are based on this concept.

Since the market price for an OCS lease is the highest competitively bid cash bonus the government receives, Federal bonus revenues are related to fair market value. However, the case law on fair market value makes clear that fair market value is a legal standard that establishes a minimum regarding what is acceptable for a lease but does not require maximization of revenues. (See, for example, California v. Watt, 712 F. 2d 584, U.S. Court of Appeals, District of Columbia Circuit, July 5, 1983.) Furthermore, because it is tied to market prices, the fair market value of a particular property can increase or decrease as conditions which affect market prices vary. Thus substantial variation in Federal leasing revenues can occur as prices in the lease market change, without violation of the fair market value requirement.

In assessing the revenue and fair market value effects of the pace of leasing, it is important to distinguish between the factors that affect the market price of leases and the resulting Federal revenues without preventing assurance of fair market value, on the one hand, and factors that affect assurance of fair market value, on the other. Legally and technically speaking, concerns about meeting the fair market value requirement are limited to the adequacy of competition in cases for which competition is relied upon and the adequacy of the Government's tract evaluation and bid rejection policies in cases for which they are relied upon. In some cases, of course, both competition and tract evaluation are used.

The adequacies of competition and Government procedures can be analyzed and debated at length. Even if such analysis shows that leasing would be in technical compliance with the fair market value requirement, there is likely to be the perception that any failures on the Government's part to get as much as conceivable for leases are violations of the fair market value requirement. Thus, various means for increasing Federal leasing revenues can be considered, not only for their deficit reduction benefits but also for the increase they may yield in public confidence in the conduct of the leasing program.

If market prices competitively determined are the preferred measure of fair market value, then the issue arises, can the price at which properties are sold always be regarded as fair market value? More particularly, is any high bid received for an OCS lease to be regarded as fair market value? It has been argued that since the sealed bidding process is competitive, each bid submitted must reflect the possibility of competitive bids even if none materialize. This argument is supported by the concept of an equilibrium in the distribution of bids over the many tracts bid upon simultaneously. If a firm could identify a class of tracts for which the high bids would be substantially less than fair market value, it could reap more profit by shifting its bids into that class. The distribution of bids that results from many firms' efforts to find such situations tends toward an equilibrium in which the returns expected from all lease acquisitions tend to be similar.

A situation identified by the Commission on Fair Market Value Policy for Federal Coal Leasing which argues against automatically using market prices as a standard for "fair market value" is monopolistic manipulation of the market. Any seller is a monopolist if it can exert control over a sufficient portion of the supply of a given commodity or property to influence the market price by changing the amount it offers for sale. A monopolist can cause prices to increase by withholding his supply or to decrease by offering more. Monopolists can restrict their output to extract higher profits from their customers. Dominant firms in a market, including monopolists, can "dump" their product at low prices to force competitors out of business. The issue thus arises as to whether market prices in a monopolistic market are adequate measures of fair market value. This issue needs to be addressed in OCS leasing because the Federal Government's dominant role in the supply of offshore oil leases raises the possibility that it could exert power over lease prices in a way similar to that of a monopolist. Arguments have been made that areawide leasing in effect drove down bids by "dumping" too much acreage on the lease market on the one hand and that tract selection leasing could increase prices by exercising monopoly power on the other.

The Coal Commission reviewed the case law on fair market value. It found that the courts have recognized that "the market price may not necessarily be determinative" of fair market value if there is "evidence that the market had been artificially depressed."[1] Since the Secretary, in leasing Federal coal, determines fair market value primarily by an appraisal based on prices in comparable sales, the Commission found that he "should take an active deliberative role in determining whether the sales in question were made under market conditions conducive to arriving at a fair price."[1] Of particular concern was whether "unrestrained leasing might have the effect of depressing an already 'soft' market, with the result that prices obtained in such a market may be below fair market value."[2] Appraisals based on prices in comparable sales that were below fair market value should, therefore, not be used to determine the fair market value of Federal coal leases. Similar concerns have been raised that areawide OCS leasing reduces competition and depresses OCS lease prices below fair market value.

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[1] Coal Commission, p. 619.

The operation of a monopolistic lease market can be understood by comparison to the operation of an idealized competitive lease market. Fair market value is defined as the market price determined in a competitive market because such a market allows buyers and sellers to agree to transactions without compulsion and with knowledge from the market. An idealized competitive lease market would involve many sellers and many buyers, though not necessarily in every transaction. Such a market would have developed had the Government sold all, or at least most of, the OCS lands outright many years ago. If no single owner of OCS lands could affect lease prices in general by his decision to lease his oil and gas rights, then lease prices would be competitively determined and would be a good measure of fair market value.

In an idealized competitive lease market, an OCS landowner could decide to withhold his leases to gain from the appreciation in value resulting from expected increases in oil and gas prices or decreases in costs. He would do so using the same rule of thumb as the idealized OCS manager described in Appendix F except that he would compare the rate of appreciation with his own discount rate rather than the social discount rate. If an individual OCS landowner withheld his oil and gas rights, whether to his own benefit or detriment, it would not affect the prices of other oil and gas leases transferred in the market. Similarly, if an individual OCS landowner chose to lease all his land, it would not affect the prices of other leases. The competitive operation of the market would assure that prices were fair market value.

In comparison, an OCS owner with holdings sufficiently extensive to affect lease prices in general could cause lease prices to be higher or lower than the fair market values that would result from the idealized market. If he managed to imitate the supply of leases that would have resulted in an idealized competitive market, then lease prices would be the same as the competitive market lease prices and would be fair market value. To do so, however, would require that he exercise little restraint on the availability of his tracts for lease.

Despite the Government's position as the dominant seller of offshore leases, there are several fundamental limitations to its ability to exercise monopoly power. First is the fact that OCS leases are not bought for their inherent value to the buyer, but for the oil and gas which they may yield. The value of an OCS lease is derived from the expected value of the oil and gas which will be produced if found. The price of oil, in particular, is set by an international market which the United States alone has little ability to affect. The expected price of oil and gas is affected very little by the rate of OCS leasing. As a result, the Government cannot extract true monopoly profits by withholding leases and forcing both lease prices and oil prices to higher levels. The Government can, however, increase the price paid for each lease issued by delaying its sale during periods of rising price expectations. (Appendix F discusses the question of whether this practice is beneficial to the economy.) It might increase its bonus revenues from specific tracts leased in this manner but it is not necessary to do so in order to assure receipt of fair market value, just as it is not necessary to hold a stock while its value is appreciating in order to receive fair market value when it is sold.

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[1] Coal Commission, p. 620.
[2] Coal Commission, p. 622.

The Government is also limited in its ability to cut lease prices. Firms "dumping" their products to inflict financial damage on their competitors (through so called predatory pricing) set prices below their competitors' costs. The Government, however, cannot set lease prices because it must use the sealed competitive bidding process. This means that, even if the Government wished to sell at an amount less than fair market value, any firm willing to pay just slightly more than the going price could enter a bid and win a lease. The profits firms could make by bidding enough to win such tracts but still less than fair market value would tend to attract more firms. Thus, any observable tendency for the market to underprice OCS leases would attract more bids and yield higher prices over time.

It is also worth noting that the OCS tract evaluation method does not raise the issue identified by the Coal Commission regarding fair market value determinations using below fair market value prices from comparable sales. The MMS tract value estimates are made by the discounted cash flow method which uses estimates of tract characteristics, future costs and future oil and gas prices to calculate the net value of the tracts after royalties and taxes. Prices bid for oil and gas leases are not used in this method.

The issue of whether the pace of leasing affects receipt of fair market value thus boils down to two questions. The first relates to tracts for which there is evidence of competition in the submission of three or more bids. The question is whether either lease values or the competitive process is so affected by the rate of leasing that the high bid on such tracts can fail to be at least as great as the market price that would result from a transaction between knowledgeable and willing buyers and sellers. The second is whether the government's tract evaluations and bid rejections can assure receipt of fair market value on tracts for which there is less evidence of competition. These questions will be addressed below.

V. Revenue and Fair Market Value Consequences of the Pace of Leasing

This section describes a number of analyses that have been performed of the effects of areawide leasing. First it examines the revenue tradeoffs inherent in the choice of faster versus slower leasing. In many transactions, the seller must choose between a certain and immediate sale at a lower price on the one hand and an uncertain later sale at a higher price on the other. Since the Government retains a rental and royalty interest in tracts leased and stands to collect taxes on profits as well, this type of tradeoff involves consideration of the differences in timing of these revenues as well as of the bonus or cash price paid at the time of the lease sale. The analysis described below shows the gains that result from receiving all forms of revenue sooner because of the areawide lease sales in 1983, 1984 and 1985 as compared to continued tract selection sales. Bonus decreases equal to such gains could be incurred without a net loss to the Treasury. In other words, this analysis shows the maximum decrease in bonuses that could have resulted from the areawide lease sales held in 1983 and 1984 while not costing the public financially.

Second, it describes a variety of analytical methods used to assess the extent of change in the bonuses paid for tracts leased that results from various causes. The approach is to analyze each cause-and-effect relationship itself to determine how sensitive tract values and bonuses are to each cause of change. This approach has been used to assess the likely bonus effects of the pre-sale information including nominations, oil prices, number of bidders, and the likely effects of larger lease sales on the number of bids received.

Third, this section describes the results of using statistical regression techniques to analyze data on changes in observable variables which are believed to be related. This approach uses mathematical techniques to determine the extent to which variations in one variable are associated with variations in another variable. This method has been used to analyze the relationship between the bonuses paid for leases in both tract selection and areawide sales, and such factors as the size of the sale, oil and gas prices, resource potential, water depth, and the number of bids. By statistically controlling for the effects of other factors affecting bonuses, regression can provide estimates of the change in bonuses associated with larger lease sales.

A. Tradeoffs in the Timing of Revenues

The large lease sales in the Gulf of Mexico during 1983 and 1984 resulted in much more acreage being leased than the historic rate. During 1983 and 1984, 1,843 leases were issued for $6.7 billion in the Central and Western planning areas. If the previous tract selection procedures had been used to offer these blocks, some of the blocks would not have been leased until 1990 or later. The Federal treasury benefited from receiving those bonuses in 1983 and 1984 rather than receiving them over a longer period because revenue today is always more valuable than the same amount of revenue received in a later time period.

The precise benefit of receiving bonuses earlier can never be known, however. The bonuses which might have been paid for the blocks if they were leased in a different year than they were actually leased would most likely be different than the actual bonuses received. Geologic information would be different, either increasing or decreasing the value of some blocks. Economic expectations would likely be different from what they were in 1983 and 1984, which would lead to a different bonus being offered than was offered when the block was leased. It is possible, however, to estimate how much more, on average, each block would have to receive if leasing proceeded at a slower pace in order to equal the value of the revenues received in 1983 and 1984.

From table 1 it can be seen that the average rate of leasing in 1978 through 1982 in the Central and Western Gulf of Mexico planning areas under tract selection procedures was 1.0 million acres a year. This translates into about 200 leases a year being issued. The leasing in 1983 and 1984 represents 9 years of leasing at 200 blocks per year. The present value in 1983 of the bonuses received in 1983 and 1984 is $1.45 billion more at an 8.0 percent discount rate than the present value of receiving the 1983 bonuses uniformally over the period 1983 to 1987 and receiving the 1984 bonuses uniformally over the period 1988 to 1991. Thus, bonuses in tract selection sales would need to be an average of $1.0 million more per block or $1.8 billion more in total for the bonuses to yield the same value to the Federal treasury as did the bonus revenue actually received in 1983 and 1984.

The Federal Government also receives royalties, corporate income taxes, and windfall profit taxes[1] from those leases that are productive. These revenues will also be received earlier by the Federal Government from earlier leasing of the tracts. The nominal value of these revenues may be increased or decreased depending on differences in prices and tax laws, but an estimate of the present value benefits from receiving them earlier can be made given certain assumptions.

The highest bonus anyone should be willing to spend for a lease is that residual value after royalties, taxes, and exploration and development costs which produces precisely an expected after-tax rate of return which is equal to the rate of return on the best alternative investment. Discounted cash flow models can estimate the residual values, royalties and taxes for specified tract characteristics. At an 8 percent discount rate, the residual value of tracts typical of those being leased in the Gulf of Mexico has been estimated to be between 25-50 percent of total Government receipts, i.e., other Government receipts are estimated to be 1-3 times the expected residual value which can be paid as a bonus to lease the tract. Assuming other Government receipts will turn out to be 1.5 times the bonuses actually received, the total present value gain from leasing the 1,843 tracts in 1983 and 1984 instead of the 1983-1991 period is $3.6 billion in 1983.

Thus, because the Federal Government benefits from receiving revenues earlier rather than later, bonuses can be significantly less with earlier leasing and still have the present value of revenues remain the same as it would be with much higher bonuses received later. With the assumption that other Government receipts are 1.5 times the higher bonuses received in later time periods, the higher bonuses would have to average $4.6 million more per tract than they did when leased in 1983 and 1984 for the two revenue streams to have the same present value. In other words, bonuses in the areawide sales of 1983 and 1984 could be as much as $4.6 million per tract lower than they would have been in tract selection sales over the 1983-1991 period without causing an overall loss to the Treasury.

Lower bonuses, however, result in smaller write-offs against future Federal taxes. When one considers that lower bonuses would also result in higher taxes, these assumptions result in bonuses which would have to average $8.5 million more per tract in tract selection sales for equal present values.

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[1] The windfall profit tax is scheduled to be phased out between 1987 and 1990.

Estimation Method

It was assumed that the 1029 tracts leased in the Central and Western Gulf of Mexico areawide sales in 1983 would have been leased in tract selection sales over a five-year period at a uniform rate. Similarly, the 814 tracts leased in 1984 areawide sales would have been leased in tract selection sales from year five to year eight (assuming 1983 was year 0) at a uniform rate.

To simplify the analysis, it was also assumed that oil and gas prices and expectations were not changing over the leasing and production periods. While this may not be the actual situation over the next 20 or 30 years, this assumption has the advantage of focusing the analysis on the timing of receipts to the Treasury rather than on the timing of leasing vis a vis world oil price trends. (In fact, areawide leasing may well have leased many tracts relatively early in a period of declining oil prices and oil price expectations whereas tract selection leasing would have resulted in leasing many of these tracts later in the period of price decline.)

It was also assumed, for purposes of the initial analysis, that the lengths of time from lease issuance to exploration, development and production milestones were unaffected by the shift from tract selection to areawide leasing. If these time periods were increased by the buildup of firms' inventories of tracts, it could change both bonuses and other revenues. While both would be reduced, their relationship might change as well.

An equation was developed that would give an estimate of the amount by which average bonuses would need to be increased by leasing more slowly in tract selection sales for the total revenues from the leases issued in these sales to have the same present value to the Treasury as the total revenues from issuing the leases in the areawide sales of 1983 and 1984. The variables in this equation are:

PI = the ratio of other Government revenues (rental, royalty, and tax payments) to the bonuses at the break even level, i.e. PI multiplied by the bonus equals the present value of other Government revenues.

Omega = the increase in present value of taxes because of the effect on taxes from a lower bonus tax write off.

Delta = gain in bonus value per tract from earlier leasing during 1983 and 1984 in the Central and Western Gulf of Mexico planning areas. Average bonuses in tract selection sales would have to be higher by an amount equal to delta for the present values of the two revenue streams to be equal.

Delta is the solution to the following equation:

$$\text{Bonus}_{83} + \text{PI}*(\text{Bonus}_{83} + \text{Delta}*\#\text{tracts}_{83}) + \text{Omega}*(\text{Delta}*\#\text{tracts}_{83}) +$$

$$(1/1.08)*\text{Bonus}_{84} + \text{PI}*(1/1.08)*(\text{Bonus}_{84} + \text{Delta}*\#\text{tracts}_{84}) +$$

$$\text{Omega}*(1/1.08)*(\text{Delta}*\#\text{tracts}_{84}) =$$

$$\sum_{i=0}^{4} (1/1.08)^{i}*((1+\text{PI})*(\text{Bonus}_{83} + \text{Delta}*\#\text{tracts}_{83})/5) +$$

$$\sum_{i=5}^{8} (1/1.08)^{i}*((1+\text{PI})*(\text{Bonus}_{84} + \text{Delta}*\#\text{tracts}_{84})/4)$$

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The left hand side of the equation is the present value in 1983 of the revenues from leasing in the Central and Western Gulf of Mexico during 1983 and 1984. The first term, $Bonus_{83}$, is the actual amount of the bonuses received. The second term, $PI*(Bonus_{83} + Delta*\#tracts_{83})$, is the expected value of the other revenues (royalties, corporate income taxes, windfall profit taxes) the Government will receive. The $Delta*\#tracts_{83}$ is included since other Government revenues would not decline even if the bonus declines. PI is the relationship of other Government revenues to the full residual value of a tract. The third term, $Omega*(Delta*\#tracts_{83})$ is the increase in corporate income taxes as a result of a lower bonus of the amount Delta. An Omega of .2 results from a 46 percent marginal tax rate, a write off after 5 years for 70 percent of the tracts which will be non-productive, and a write off over a typical production period for the 30 percent of the tracts which might be productive. Assumptions that more than 70 percent of the tracts will be non-productive would lead to an Omega higher than .2. The other terms of the left hand side of the equation are the same variables for the tracts leased in 1984, and discounted to 1983. The terms on the right hand side of the equation represent the present value of Government revenues if they were received over a nine-year period. The first term,

$$\sum_{i=0}^{4} (1/1.08)^{i}*((1+PI)*(Bonus_{83} + Delta*\#tracts_{83}))/5)$$

is the present value of the revenues from the tracts leased in 1983 assuming they were leased uniformally from 1983 through 1987. The next term is the present value of the revenues from the tracts leased in 1984 assuming they were leased uniformally from 1988 through 1991.

Results

Ratio of Other Revenues to Bonuses (PI)	Fractional Increase in Tax Revenue from Lower Bonuses (Omega)	Required Increase in Average Bonus (Delta) (in $ million per tract)
0	0	$ 1.0
.5	0	$ 1.8
1.0	0	$ 3.0
1.5	0	$ 4.6
.5	.2	$ 2.6
1.0	.2	$ 4.6
1.5	.2	$ 8.5
2.0	0	$ 7.5
2.0	.2	$19.3

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The above table presents different values of Delta under varying assumptions. Values of Delta of $4.6 to $8.5 million per tract are reasonable estimates of how much lower bonuses could be on average under the leasing rates of 1983 and 1984 and still have the present value of Government revenues be the same as the present value of Government revenues under the leasing rates of tract selection sales. As stated above, a value of .2 for Omega assumes a very high rate for the percent of productive tracts. The bonus is written off very slowly for productive tracts which results in a small present value change in tax revenues. The assumption of 1.5 for PI is also at the low end of estimates of the current relationship between other revenues and the residual value. Changes in the timing of exploration, development and production might reduce PI. If PI were 1.0 to 1.5 and Omega is .2, the value of Delta is $4.6 to $8.5 million.

Sales in 1985 in the Central and Western Gulf of Mexico are not included in the above analysis. In May 1985, 444 more tracts received bids in Sale 98 in the Central Gulf of Mexico. Some of the high bids will be rejected, but many of the tracts would not have been leased under tract selection procedures until 1995. If this longer time period were considered, the average bonus would have to be even higher than the $4.6 to $8.5 million level to equate the present value of revenues received under tract selection procdures and areawide procedures.

B. Factors Affecting Lease Prices

Some factors have been identified through which areawide leasing might affect the amounts bid for leases. These include the reduction in information gleaned by bidders from the nomination and tract selection process and the effects of firms' budget limitations. In addition, changes in the characteristics of the tracts being bid upon can affect the amounts bid as can changing oil and gas price expectations.

Some comments on the current 5-year program have argued that the modification of the nomination process reduces the amount of information available to prospective bidders and thereby reduces competition and the amount that a firm will bid for a lease. The empirical evidence that has been cited to support this claim is the decline in the average bonus per acre for leases in the Gulf of Mexico during a decline in the average number of bids per tract. A decline in average bids could result from many other causes as well, such as changes in price expectations or leasing of more lower value tracts.

The role of tract nominations in bids does not seem to be substantial. Oil exploration is inherently risky. With current technology, the only way to eliminate (or at least significantly reduce) geologic uncertainty is to drill. Historically, over 85 percent of all exploratory wells in the Gulf of Mexico have been dry. The information whether somebody has nominated a tract does little to change the perceived riskiness associated with the value of a lease. At most it might affect slightly the perceived risk about the geologic conditions, but it can do nothing to change the other risks associated with exploring for oil and gas.

Historically in the Gulf of Mexico, many millions of acres have been nominated for each sale. The names of companies submitting nominations were made public but the tracts nominated by a specific company were never made public. The information released was a map specifying the tracts nominated and whether they had high, moderate, or low numbers of nominations. In the Gulf of Mexico, the map generally only indicated moderate and low levels of nominations as generally only 1-4 nominations were received. In addition, if companies specified general areas instead of specific tracts in their nominations, the information was not used. This practice diluted whatever value a nomination may have to a bidder. The information that a particular tract has been nominated by someone is of minimal, if any, value to potential bidders in reducing the geologic uncertainty of oil and gas exploration efforts given the inherent risk in exploration. A firm is not going to bid on a tract just because someone has nominated the tract or because the MMS has looked at the geology, looked at the nominations, and selected the tract to be offered in a lease sale. Before making a bid, a firm will collect and analyze geologic and geophysical information,[1] make projections about future oil and gas prices and future development costs if oil and gas are discovered, and estimate the present value of expected profits from exploration and development. Such analysis is substantially more detailed than the information that can be gleaned from the fact that a tract was nominated by another firm. A firm may analyze a tract it otherwise might not if it receives several nominations, however. But given the extent of masking that firms do when they nominate tracts, it is difficult to judge how important this might be.

Tract selection, by limiting the acreage that was offered for lease, might have lead potential bidders to study some of the tracts to be offered more intensively than the tracts not to be offered, thereby gaining information on the tracts offered that they may not have had otherwise, but the mere fact that Interior selected tracts to be offered conveys little, if any, information.

Some comments suggest that the limited budgets available for bidding can also reduce competition when the pace of leasing is high. Limited budgets do not, in themselves, reduce competition, however. Limited budgets only make people or firms allocate their budgets to items which give them the greatest return. In fact, the basic tenets of modern economics are that all budgets are limited and tend to be applied to items anticipated to provide the greatest returns.

The substitutions that result from budget and resource limitations are highly desirable, however. Market allocation and economic efficiency are facilitated by these substitution possibilities. Firms have the option of investing in oil exploration, whether onshore or offshore, on public or private lands, or even in other countries. They also have the option of investing in non-exploration activities. If they choose not to invest in offshore leases, it means that they believe the investment opportunities are better elsewhere. Restricting the acreage available for leasing reduces the ability of the U.S. economy to invest in those domestic projects yielding the highest return and may encourage investment abroad.

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[1] MMS also makes lessees' geological and geophysical information available to the public after an initial period of confidentiality. 30 C.F.R. 250.3. Making this information available likely does more to reduce risk than having tract nominations.

One of the most important determinants of the value of oil and gas leases is the expected future price of oil. Table 8 presents estimates of tract values calculated by a discounted cash flow evaluation model for several different types of tracts using prices of oil and gas and exploration factors which were used in bid adequacy determinations in past sales in the Gulf of Mexico. The tract value estimates depend on the many other assumptions used, but it is clear that expectations about the future price path for oil and gas strongly influence what the bonus bids will be for any given assumptions about the quantity of the resource expected, and the cost of exploration and development, which in the Gulf of Mexico basically depends on water depth and the depth of the productive horizon. High cost prospects are particularly sensitive. A reduction in the rate of price increase from .02 to zero at $33 per barrel reduces the high cost, tract values by 58 to 69 percent. Reduction from $33 to $28 per barrel at zero increase reduces high cost, tract values by 57 to 86 percent.

As discussed in section III, tract values are affected by the pace of leasing because of the resulting effects on the characteristics of tracts remaining in the unleased inventory. The value of individual tracts can appreciate if they go unleased while oil and gas price expectations increase or favorable geological data emerge. Value of individual tracts can also depreciate if price expectations decline or unfavorable geologic data emerge. If numerous tracts are appreciating during a period, but fewer are being leased, the resulting inventory buildup will yield higher bids on the selected tracts leased. More rapid leasing after a period of inventory appreciation and buildup will tend to reduce the amounts bid as additional tracts are leased in successive sales. This draw-down effect is accentuated to the extent that more moderate-to-low value tracts are leased during the same period.

The issue that arises in formulation of the third 5-year OCS Leasing Program is the extent to which the pace of leasing under different procedures in that program would influence lease prices and the assurance of fair market value. Restricted lease offerings that would not offer all of the tracts that could be leased in a particular sale would tend to yield higher average lease prices because fewer low valued tracts would be included in the average. They would also tend to yield higher average bids to the extent that appreciation in the value of tracts occurs while they are withheld from leasing because of increasing expectations regarding oil prices or resource potential. While a higher average value is not necessary for technical compliance with the fair market value requirement, it might provide a higher level of public confidence. On the other hand, it can be argued that continuation of more rapid leasing over the long run would tend to yield prices similar to those of an idealized private OCS market that would clearly be regarded as yielding fair market value.

The actual rate of leasing from continued unrestricted offerings would be determined by the same factors that would influence transactions in a private lease market, namely buyers' and sellers' geologic knowledge and expectations about economic conditions and oil prices. Ironically, in OCS leasing, the potential to drive down bids by offering large amounts of acreage, if it exists at all, could only result after a substantial inventory of valuable unleased prospects had been accumulated over a period of restricted leasing. Continued offerings of substantial acreage could assure that the government would never build up an inventory of leasable tracts large enough to have a depressing effect on bids. While the amount of acreage offered by continuing large sales might be substantial, the amount of prospective acreage considered

Table 8

MMS Tract Value Estimates Under Various Price Assumptions

	Oil Price Assumptions		Tract Value Estimates ($ millions)				
			High Cost			Low Cost	
		Annual	Resource Size			Resource Size	
Evaluation Date	Starting Oil Price	Price Change	High	Medium	Low	Medium	Low
7-21-81	$33	0.02	$47.5	$27.0	$10.6	$17.8	$5.6
10-20-81	35	0.01	37.9	20.6	6.5	16.2	5.0
0-09-82	35	0.00	24.3	11.4	0.8	12.6	3.6
11-18-82	33	0.00	19.8	8.5	-0.9	10.6	2.8
5-25-83	28	0.00	8.5	1.2	-5.0	5.6	0.8
8-24-83	29	0.0067	18.2	7.6	-1.2	8.6	2.0
1-05-84	30	0.0067	20.7	9.2	-0.2	9.7	2.4
4-24-84	31	0.0067	23.2	10.8	0.8	10.8	2.8

Assumptions used:
Geologic Risk = 0.1
Conditional Barrels of Oil Equivalent by Resource Size (millions) are:
  High Cost—high 120, medium 80, and low 50
  Low Cost—medium 30, and low 12
Number of tracts per field are assumed to be 4 in high cost areas and 2 in the low cost areas
High Cost is equivalent to 400 meters water depth.
Low Cost is equivalent to 100 meters water depth.

by bidders and bid upon is likely to decrease substantially from 1983-1985 levels as the inventory is drawn down. The longer such leasing occurs while oil price expectations are declining or stable, the smaller will be the acreage actually leased, even from large sales.

C. Assessment of Competition Effects

Prices in a competitive market are good measures of fair market value because the interaction of many sellers and many buyers assures freedom of choice and provides a source of knowledge. Any seller can turn down an offer from one buyer if he thinks he can do better from another. Any buyer can search for the property and price that meet his needs, using knowledge gained from observing transactions as a guide. Competition helps make buyers and sellers willing and knowledgeable.

Competitive sealed bidding for OCS oil and gas leases provides a competitive process among buyers to assure that each Federal lease is sold to the firm that is willing to pay the most. Competition for OCS leases is usually measured by the number of bids submitted for a tract. In general, criticism of the competitive effects of rapid leasing has been based on the belief that firms bid more if they face more competing bidders on a tract. People generally have more confidence that the high bids on OCS tracts are fair market value if there are more bids on each tract. Thus, there is concern that areawide leasing, by spreading the same number of firms with their limited budgets over many more tracts, has thinned competition and allowed firms to reduce their bids below fair market value without increasing the risk of being outbid.

To assess the effect of competition in past and future lease sales of various types, it is useful to examine in more detail the relationship between the number of bids received and the amount of the high bid on a tract. Figure 1 shows strong evidence of a correlation between the number of bids and the amount of the high bid. It is not clear, however, whether and to what extent this occurs because more bids cause firms to bid greater amounts or because more valuable tracts attract both higher bids and more bidders. It is useful to examine both the theory of bidding on properties of uncertain value and some data from leasing experience to assess these relationships.

Theoretical studies of bidding behavior suggest that the desirable competitive effects of an auction are realized when there are three knowledgeable bidders. These studies suggest that when any bidder anticipates more than three bidders, the income maximizing bidding strategy is to offer a lower bid than he would offer if he only anticipated two other bidders. Failure to make this adjustment increases a firm's chances of winning the tract by being the most over-optimistic bidder. At least theoretically, a firm would not increase its bid for a tract if it expected more competing bids. Under this bidding strategy, more bidders for a lease would still result in a higher high bid, but because of a statistical effect rather than because of competition forcing each bidder to bid higher. It occurs because the greater the number of firms estimating the value of a tract, the higher the highest estimate tends to be.[1]

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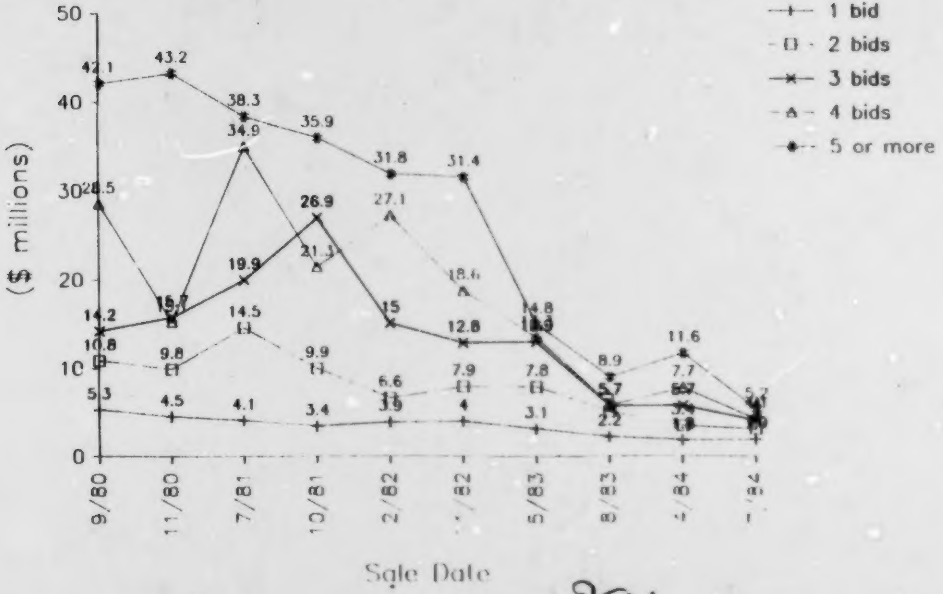
[1] For a fuller discussion of the theory of bidding see James Ramsey, Bidding and Oil Leases, JAI Press Inc., 1980; and Albert Smiley, Competitive Bidding Under Uncertainty: The Case of Offshore Oil, Ballinger Publishing Company, 1979.

Figure 1

Average High Bid by Number of Bids

Gulf of Mexico Sales



The concept that firms don't bid a higher fraction of their estimate of a tract's value when confronted by more than two other bidders provides a general theoretical underpinning for the three-bid rule used in MMS bid adequacy determinations. When there are three or more bidders for a block, it can be expected that the high bidder has bid the most that competition can bring him to bid. The high bid is therefore reflective of the competitively determined fair market value.

Different levels of competition are to be expected in bidding for items with uncertain value such as oil or gas leases. Two firms evaluating a tract are likely to interpret the geologic information differently and place different values on the tract. For tracts of marginal potential, it is likely that the evaluations by most firms would be less than the minimum submissible bid. For tracts of more promising potential, more evaluations would be above the minimum bid. One would therefore expect more bids on more promising prospects than for more marginal prospects. One would also expect a greater fraction of the tracts to draw only one bid if there were a greater fraction of lower value tracts in the sale.

The evidence from Sales 72, 74 and 79 in the Gulf of Mexico supports the concept that it is the better prospects which receive the greatest number of bids. In January of 1981, the Department issued a Call for Nominations for these sales. Thirty companies submitted nominations on 15.5 million acres. In April of 1981, the Gulf of Mexico offices of the U.S. Geological Survey and the Bureau of Land Management developed recommendations for the selection of tracts to be offered. Their recommendations were developed using the approach employed for previous tract selection sales. In the past, almost all of the tracts selected for a sale were nominated, but not all nominated tracts were offered for lease. The tracts which were thought to have the most promising potential were selected. The concept of areawide leasing was adopted after the BLM and USGS made their recomendations for the tract selections in Sales 72, 74 and 79. Those recommendations were not used to configure lease sales. The recommended tracts were offered as part of areawide lease sales. Bidding on these tracts can be used to test the argument that the relatively more attractive and more obvious prospects attract more bids.

Table 9 shows the average bonus bid and percent of one-bid tracts for selected tracts and others. The average bonus on the tracts receiving bids which both agencies recommended to be included in Sales 72, 74, and 79 was twice the average bonus on the tracts receiving bids which neither agency recommended be included in the sales. This higher average reflects the bidders' perception that these tracts have higher potential. There were substantially more one-bid tracts in the set of tracts neither agency recommended be included. Since the recommendations of the field offices of the USGS and BLM of tracts to be included in the sales were never made public, they could not have influenced the bidding. However, since industry interest was focused on these better tracts, it indicates that the better prospects are more often identified by several firms. The marginal, more risky prospects are detected by few firms or only one firm.

The bidding distributions in Alaska OCS lease sales indicate that areawide leasing has not affected competition in those sales. Three sales have been held in the planning areas in the Bering Sea: Sale 57 in Norton Basin in 1983, Sale 70 in St. George Basin in 1983, and Sale 83 in Navarin Basin in

Table 9

Comparison of Bidding on Selected and Non-Selected Tracts Gulf of Mexico First Areawide Sales

Sale 72

	Average bonus ($ million)	Percent 1-bid tracts
Recommended by both BLM and USGS	9.6	56
Recommended by neither BLM or USGS	4.7	71

Sale 74

	Average bonus ($ million)	Percent 1-bid tracts
Recommended by both BLM and USGS	6.3	44
Recommended by neither BLM or USGS	3.1	64

Sale 79

	Average bonus ($ million)	Percent 1-bid tracts
Recommended by both BLM and USGS	3.1	47
Recommended by neither BLM or USGS	1.3	84

1984. Each of these sales were the first sales ever held in these planning areas. The Norton and St. George sales were tract selection sales offering 418 and 478 tracts respectively, while the Navarin sale was an areawide sale offering 5,036 tracts. The percentage of tracts receiving three or more bids in the Navarin sale, however, was more than twice the percentage in either the Norton or St. George sale. Table 10 shows the bid distributions for those three sales.

Both the current estimates and the estimates made in 1982 of the resource potential of the Navarin Basin are higher than the estimates of potential for either St. George or Norton so the above distribution again suggests that higher potential tracts receive much greater competition than lower potential tracts.

The bidding in the Beaufort Sea again contradicts the hypothesis that areawide leasing has caused a significant increase in tracts receiving few bids. There is little difference in the bidding distributions for tract selection Sale 71 which offered 338 blocks in 1982 and areawide Sale 87 which offered 1475 blocks in 1984. Table 11 shows the bid distributions for those two sales.

Table 10

Distribution of Bids in Alaska OCS Sales

Number of Tracts (Percent)

	Norton (tract selection)	St. George (tract selection)	Navarin (areawide)
1 bid	44 (69)	63 (65)	85 (46)
2 bids	10 (16)	19 (20)	40 (22)
3 bids	6 (9)	11 (11)	23 (12)
4 bids	4 (6)	4 (4)	15 (8)
5 or more			23 (12)

Table 11

Distribution of Bids in Beaufort Sea Lease Sales

Number of Tracts (Percent)

	Sale 71 (tract selection)	Sale 87 (areawide)
1 bid	71 (57)	121 (52)
2 bids	24 (19)	52 (22)
3 bids	9 (7)	34 (15)
4 bids	7 (6)	20 (9)
5 or more	14 (11)	5 (2)

The three areawide sales in the Atlantic provide little evidence of the competitive effects of areawide leasing because there is currently limited

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interest in the Atlantic. Only 40 tracts received bids in Sale 76 in the Mid-Atlantic in 1983, only 11 tracts received bids in Sale 78 in the South Atlantic in 1983, and no bids were received at all for the proposed Sale 82 in the North Atlantic in 1984. Factors such as moratoria, threat of litigation, and the Canadian boundary dispute also contributed to the lack of interest in Sale 82.

The Gulf of Mexico lease sales provide the best evidence of the relationship between the number of bids on OCS tracts and their value. Figure 1 shows the average value (high bid amount per tract) at each level of competition for the sales from A62 in 1980 through 81 in 1984. If a thinning of competition caused by areawide leasing was the dominant cause of lower bids, then one would expect to find a substantial decline in amounts of bids on tracts receiving fewer bids with the implementation of areawide leasing, while tracts receiving more bids kept their value.

As Figure 1 shows, however, the relationship between the number of bids and the amount of the high bid does not follow this pattern. Instead, the value of the tracts receiving a relatively high number of bids (5 or more) has been declining since the peak in late 1980 despite the evident intensity of competition. The 4- and 3-bid categories also show declines that began well before areawide leasing began. The amounts bid on 1- and 2-bid tracts have declined somewhat as well, but not nearly as much as the 5-or-more-bid tracts. It is clear from Figure 1 that the resource and economic characteristics of the tracts leased in each bid category and each sale are affecting the high bids received, lowering the value of tracts in later sales even on tracts for which competition remains high.

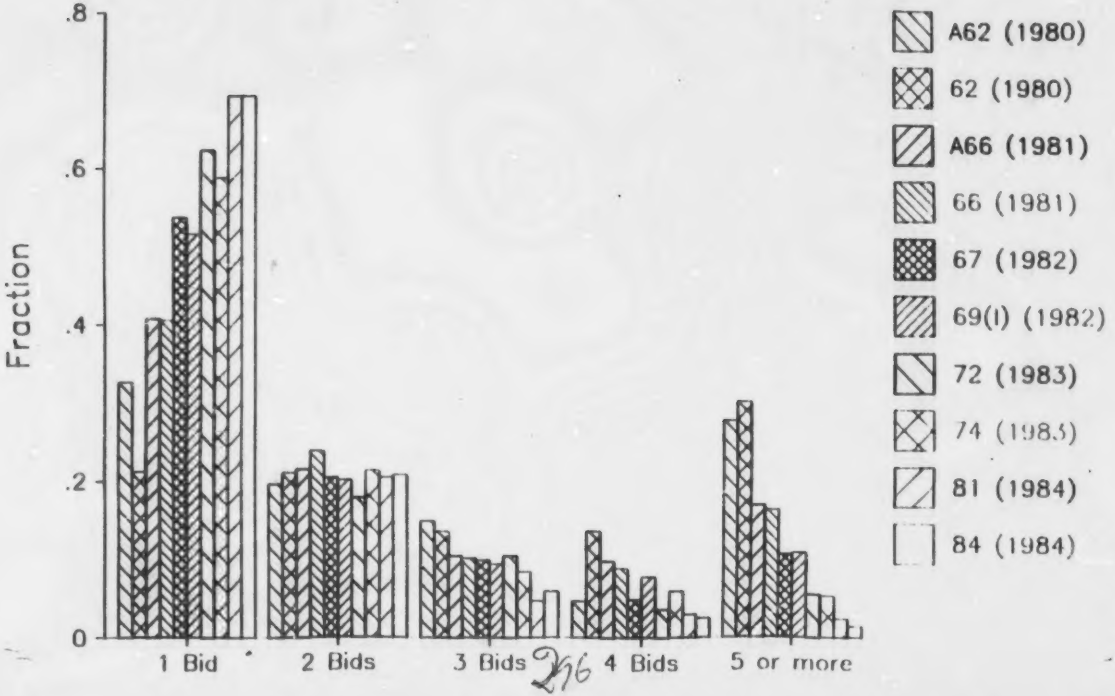
The declining number of highly competitive tracts evident in Figure 2 is consistent with the drawdown of an inventory in a series of sales that tend to lease higher value tracts earlier. This is not to say that areawide leasing beginning in 1983 has had no effect on the patterns of competition. It does suggest, however, that a substantial part of the decline in average bids is caused not by a decline in the number of bids, but by a decline in the economic value of the leases being sold.

Figure 2 shows the change in patterns of competition for leases in Gulf of Mexico sales from Sale A62 in September 1980 through Sale 84 in August 1984. It is clear from the one-bid bars and those for four and five-or-more bids that there has been a shift, increasing the fraction of tracts receiving only 1 bid and decreasing the fraction of tracts receiving four or more bids. This trend, however, does not begin with the first areawide sale, Sale 72. It begins two years earlier in 1981 with Sale A66. The increases in the fraction of one-bid tracts at the onset of areawide leasing are no more dramatic than those in 1981 and 1982 sales. These trends are consistent with a series of sales of declining quality properties in which the patterns of competition are strongly affected by the mix of tracts of different value being bid upon. Areawide leasing differed from tract selection leasing primarily by offering a greater number of moderate to low value tracts. However, declining oil and gas price expectations in 1981 and 1982, coupled with the leasing of over 2 million acres of prospects that tended to be above the average prospects in the Federal unleased inventory, reduced the number and value of the superior prospects remaining to be leased. If patterns of competition are strongly affected by the value mix of tracts offered, then the trend toward a mix of

Figure 2

Distribution of Bids By Sale

Gulf of Mexico Sales



more moderate and low valued tracts with fewer and more moderately valued high value tracts would be consistent with the trends in competition shown in Figure 2.

For the third 5-year leasing program, the patterns of competition will be affected by the value mix of tracts offered. If areawide or tract selection procedures result in a similar mix of tracts because unleased prospects are ripening slowly, then competition is not likely to be very different.

Similarly, if areawide leasing is used and prospects ripen more quickly but are leased as they become worthy of investment, then tract values as a whole will not grow very great and competition will be similar to that resulting under conditions leading to slower ripening. Competition may be shifted toward higher numbers of bids on more tracts, however, if tract selection procedures are used and acreage is not offered until its value has appreciated substantially. The higher levels of competition achieved in this situation would tend to reduce reliance on the government's tract evaluations and build public confidence that fair market value was being received.

D. Statistical Analysis of Factors Affecting Competition and Bonuses

Earlier sections of this Appendix have presented a conceptual framework for assessing the private investment, Government revenue, and fair market value consequences of the pace of leasing. Additionally, factors affecting bonus bid and competition levels were presented and discussed. Data documenting some of these factors were presented in tabular and graphical form. While these techniques are useful for discerning trends and assessing the relationships between factors, they are less useful for measuring the independent effects of the many variables which are likely to influence competition levels and bonus bids. This section discusses a statistical technique for identifying the individual effects of these influences, as well as empirical applications of this technique to explanation of high bid and competition levels.

The fundamental issue is whether and to what extent the shift to areawide leasing in 1983 caused the decreases in average bonuses and the increase in tracts receiving only 1 bid that have been observed. Statistical regression analysis using the least squares technique is a well accepted method for measuring the extent to which changes in one variable are associated with changes in a variety of other variables. When changes in variables measuring two events are strongly correlated and there is a logical, conceptual cause and effect relationship, then it is reasonable to conclude that one event is the cause of the other. On the other hand, if the changes in different variables are not strongly correlated and the conceptual basis for a cause and effection relationship is unclear, then less confidence is warranted that the events are causally related.

Statistical analyses were performed using data on a variety of factors that, in concept, could affect competition and bonuses. The objective was to determine whether it is reasonable to conclude that the observed decreases in the level of bonuses and the increase in tracts receiving only 1 bid were, to a substantial extent, caused by the shift to the larger offerings characteristic of areawide leasing.

In general, the conclusion from this effort is that conventional statistical regression techniques, given the available data, yield little or no convincing evidence that the implementation of areawide leasing was a substantial cause of the observed decline in competition and bonuses. The effects of areawide leasing identified by this analysis were a relatively small part of the total decline observed in bonuses. Further statistical analysis using more sophisticated techniques is being conducted by the MMS in an effort to further test this conclusion.

An initial regression analysis was developed in an attempt to explain changes in the values of the high bid submitted for a lease by incorporating the effects of a number of variables including the number of bids submitted, the real price of foreign oil, the triple-A bond rate, a measure of MMS's estimate of the value of the lease, as well as twelve "dummy variables" (variables which take on the value "one" if a given condition is present and the value "zero" otherwise) representing the effects of areawide leasing, alternative bidding systems (sliding scale royalty and fixed net profit share), tract type (drainage, development, and proven), the region in which the sale took place, and the individual years 1980-1984. A similar regression was used for examining impacts upon the number of bids. Regressions were run using observations from MMS's POSTSAL data base which includes sales held between December 1979 and April 1984. A review of the results of these regressions leads to ambiguous conclusions about the effect of larger lease offerings on the high bid received and the number of bids offered for OCS lease tracts. A careful review reveals that these regressions are subject to error caused by data inconsistencies and are very sensitive to changes in the variables included in the equations.

Errors due to data inconsistencies can be divided into two primary categories:

- observations for tracts whose high bid was rejected; and
- observations with missing values.

Clearly, tracts for which high bids were rejected as being inadequate should not be included in an analysis of Government revenues since no transactions were consummated for these tracts. For the set of sales considered, sales BF through 81, there were over 300 tracts for which high bids were rejected.

The second major source of error is due to data inconsistencies, i.e., systematic missing values. Specifically, beginning with Sale 76, tracts which were judged by MMS personnel as being nonviable (and therefore of minimal value) did not have tract specific data, such as tract value, recorded on the data base. Instead, the tract was assigned "missing values." For tract selection sales (those prior to Sale 76), a value equal to the minimum bid level was recorded on the data base for tracts determined to be nonviable. This inconsistency could result in excluding over 700 tracts from the analysis (all of which were leased under the areawide program although they were determined to be of negligible value by MMS personnel) unless corrections to the data are made.

Correcting these data errors and inconsistencies results in improvement in the extent to which the resulting statistical equations explain the differences among bonuses. The extent to which areawide leasing was related to declines in the number of bids and in bonuses in the equations where data inconsistencies were corrected was significantly reduced from the equations where data inconsistencies were not corrected.

Review of the statistical results also identified additional problems which seriously undermine confidence that there is a strong causal relationship between areawide leasing and declines in bidding. Most importantly, the extent of the decline in bonuses indicated by the statistical equations is quite sensitive to the way in which other variables are included in the analysis. The way in which the location of leasing is categorized and the way in which the year of leasing is specified strongly affects the statistical relationship between areawide leasing and bidding results. Since there is no logical reason this should occur, statistical results that exhibit such sensitivity to the treatment of secondary variables do not warrant much confidence.

A variety of different ways of specifying the relevant variables were tried. One specification used many geologic variables rather than a single variable to represent "tract value," included price expectation variables, water depth as a measure of costs for exploration and development, and millions of acres offered to represent the effect of larger lease sales. Additionally, variables were included for each category of the number of bids received to fully incorporate the nonlinear effect of the number of bids upon high bid.

The results of this formulation show no statistically significant effect upon the level of the high bids from increasing the acreage offered. The results indicate that increasing the acreage offered may have had a small effect upon the number of bids. But it should be noted that a much larger effect upon number of bids seemed to have begun in 1982, before the beginning of areawide leasing, at a level of about one bid less per tract. This specification was less sensitive to the way in which the variables for the year and location of leasing were specified, giving greater confidence in its results.

Taken as a whole, these preliminary regression results indicate that the increased acreage offered in areawide sales may have made a relatively small contribution to the total decline in bonuses observed in 1983 and 1984. However, this is more than offset by the earlier receipt of bonus, rental, royalty and tax payments. Thus, it is likely that the bonus reductions due to larger sales were more than offset by revenue gains due to earlier receipt of revenues.

Further evaluation is needed to test the validity of this specification of the relationship between the amount of acreage offered and the bidding for OCS leases. It is possible that there are features of the results which would undermine confidence that the cause and effect relationship was correctly measured. Other approaches are being developed. At this point, however, it is reasonable to conclude that the application of standard statistical regression techniques does not provide strong or consistent evidence that the areawide offerings of OCS leases was the primary cause of the substantial declines observed in the bonuses received for OCS leases.

The **Chairman**. Mr. Secretary, I have a series of questions I want to ask. Some of them overlap part of your statement, but they may be asked in a slightly different manner, and I would like to run through those rather quickly if I can. I am trying to set the stage for where we are and what happened in the negotiations.

Why did you agree even on a preliminary basis to the 150 tracts if it was clear that industry was not interested in them?

Secretary **Hodel**. I did not consult with industry, Mr. Chairman, on those 150 tracts. This was a meeting that took place after 4 o'clock on a Friday afternoon with plane departures on the way. I was specifically encouraged that if we were going to have a meeting, I should do it without staff present, and we did meet on that basis, just three Congressmen, one Senator, and I.

I did not have a chance to consult with industry or others who knew something about the values. I indicated right then and there that I thought there was some real question, but that I couldn't walk out and explain it if I were called upon to do so.

The **Chairman**. What new geological or other information became available to you after the preliminary agreement was negotiated that was not available before that time?

Secretary **Hodel**. Prior to that proposal on the 150 tracts, Minerals Management Service had not looked at those tracts on a tract-by-tract basis. In fact, we had not looked at most of the tracts on tract-specific basis.

Rather, we had looked at the tracts on an area basis or a structural basis, but we had not tried to analyze what each tract contained individually because it is a very chancy and iffy business. These numbers we use today will continue to be chancy and iffy, and nobody will know until you actually go out and explore.

Therefore, we are not trying to refine our data on that kind of basis as to those tracts.

The **Chairman**. And since that time you have had occasion to have been given advice?

Secretary **Hodel**. As soon as we got the 150 tracts, we began doing it. Our staff began consulting with geologists, both in the Department and in industry, and tried to put together their best estimates of what might be in those tracts. That is what has become available over the course of the intervening weeks.

The **Chairman**. Why did you agree to a 15-year moratorium on the remaining 6,460 tracts if you were aware that it takes 8 to 15 years to explore and bring a potential area on line?

Secretary **Hodel**. Because, Mr. Chairman, it was the only basis on which initially 63 tracts were offered by the delegation, and if they were to increase, they would have to have some additional protection. My response to that was, I couldn't do that. We were at impasse. I think that was the occasion, although I can't be sure it was precisely the one, where I then ended up sitting down the hall for an hour and a half while the delegation apparently discussed the matter.

Finally, I was invited back to the room. At that point it was suggested, "Could we solve the problems that I had raised about putting tracts off limits until the year 2000 by some kind of national energy emergency language?" I said I thought that was indicative of an effort to solve the impasse, but I did not see how we could get the resource rapidly enough, but I didn't have a better alternative.

They said, "Well, will you take a look at the language that might be used to do this?" I said, "Well, we will certainly take a look at the language." This was perhaps a week or two before the final negotiations.

The CHAIRMAN. Did you consider making 5 to 7 percent of the oil and gas resources available through the year 2000 offshore California in the best interest of the Nation?

Secretary HODEL. No, I did not.

The CHAIRMAN. Why did you negotiate and reach agreement on such an important and controversial issue with only a small portion of the California delegation? Why weren't they all involved?

Secretary HODEL. Because, Mr. Chairman, it was this portion of the delegation that has been holding sway over the Congress of the United States and has been successfully able to insert in appropriations bills moratorium language. They have considerable leverage, and it seemed to me that unless I could reach some kind of agreement with these people—these members of the delegation—it was clear we still had a confrontation over a moratorium ahead of us.

The CHAIRMAN. Why did you go public with even a preliminary, tentative agreement before you had thoroughly studied the viability from either a resource potential or national interest standpoint?

Secretary HODEL. Mr. Chairman, I think you have asked the question that I have to answer. I think it was an error. I think that was a mistake, and the reason that I recall doing it, as I think back, was that it was urged upon me by the members there.

It was understood that it would be recognized as a preliminary agreement. We would go out and hear what people had to say, and I put less importance upon that because of its preliminary nature and to clear things in the agreement that had to be analyzed. I may have chosen to include more members in retrospect.

The CHAIRMAN. You have been charged by some that you caved in to pressure from the oil and gas industry since that time. How do you answer that question?

Secretary HODEL. I don't believe that I have. It seems to me that the issue that has been raised is one that has concerned me with regard to resources. That resource information weighs heavily upon me as I try to carry out my responsibilities as a Secretary, and further, finding out that these representatives of the delegation could not deliver, even on the tracts they were offering, a program that had certainty in it didn't enhance my feelings about the product.

But I think that the representation that I caved in to industry is the kind of argument I would have to expect in this kind of a process, but the numbers are what have impressed me, Mr. Chairman.

The CHAIRMAN. Even though the agreement was termed preliminary, some members of the California delegation have argued that the term "preliminary" was never meant to give you latitude to engage in a major restructuring of the agreement. What was your understanding and how would you respond to the charge by some that you are now reneging on an agreement or the agreement?

Secretary HODEL. Mr. Chairman, it may be that some of those who were in that last minute meeting with me went forth to other members of the delegation and represented something more certain than what we clearly understood, but in my office at the time that document was dictated it was clearly understood it was preliminary and the reason was several of these points that we have previously discussed.

We did not know what the resources were. They did not know at that point nearly as confidently. At least they did not assert to me at that point that they knew with confidence what their constituent reaction would be. In fact, as we found out, the constituent reaction from some has been no way. They will not support the preliminary agreement.

And finally, we had not resolved the energy emergency language. So clearly it was a preliminary agreement, and it should have been understood more strongly that way.

The CHAIRMAN. Mr. Secretary, isn't there a danger or likelihood that this will be taken as precedential with respect to other areas of disagreement offshore, whether it is Alaska or gulf coast or Florida or the New England coast?

Secretary HODEL. Not only is there substantial danger, Mr. Chairman, but the Congress has already created that situation. We have moratoria now off New England. We have had moratoria in the eastern Gulf of Mexico.

We have had a Secretary, my predecessor—Mr. Clark, Secretary Clark who deleted 83 percent of the tracts in the North Aleutian Basin sale in an effort to be responsive to the State of Alaska, which then has turned around and demanded the remaining 17 percent be deleted.

So, there is no question there is danger of a precedent. The precedent that is dangerous is the moratorium.

The CHAIRMAN. You don't think that this kind of an agreement is going to exacerbate the problems in the other areas?

Secretary HODEL. Yes, it could very much so. In fact, we are already encountering some of that, Mr. Chairman. People are saying, "If that is going to happen off California, then why can't it happen off my State?"

The CHAIRMAN. Do you believe that OCS activities will have an adverse effect on tourism?

Secretary HODEL. No, I do not. In fact, we heard testimony in the town hall meetings, Mr. Chairman, that indicated that there is no correlation that can be established between reduced tourist activity and OCS activities. In fact, the trend lines where there is OCS activity off the California coast are all very positive.

The CHAIRMAN. Mr. Secretary, if you could do one thing over again in this process, one thing, what would it be?

Secretary HODEL. Ask for three wishes. I think first of all, Mr. Chairman, I would seek to include other members of the delegation earlier. Second, I would have a witness present when I talked about what I didn't know about the 150 tracts.

When I presented the 900 tracts, I made plain that we were dealing with older information, and that we deal in bulk. We did not know what specifically was in each tract, and that was understood, I thought, by the delegation. It clearly has been misunderstood since.

I think that I would resist the idea that we should call it an agreement. I think that having had this experience, I would understand the potential in that I saw Mr. Panetta's press release the day after this was announced, and it said something about historic agreement entered into, and that lays a foundation for later misunderstanding.

And finally, I think probably my willingness to try to get rid of the arguments over places like Big Sur and Cordell Bank was desirable but it was not productive in that it is not even acknowledged today that we have made that commitment, and for anybody who favors unilateral disarmament, they ought to take a look at this process as proof that it doesn't work.

The CHAIRMAN. Was there any provision or should there be any provision with respect to the revision of the tracts after drilling begins? For instance, you may assume that a structure moves in one direction or trends in one direction, and you drill on it and find that it trends in the other direction. Should there be provision or is there provision or adjustment of tracts?

Secretary HODEL. In this preliminary agreement, there is no such provision. It became clear in the discussions along the coast that you have to take that kind of potential into account. One of the suggestions made by a member of the committee in the hearing last week is that there should be some kind of a rollover provision that if these 150 tracts all prove to be of no interest or have no resource, there ought to be a way to replace them with another 150 tracts that have some potential.

The CHAIRMAN. If you can't drill on any of these until 1987 in the absence of further legislation, how does a moratorium on drilling hurt?

Secretary HODEL. Not only can we not drill, we could not hold a sale, and it would take probably 2 to 4 years to obtain the necessary permits from the State of California in order to go forward with drilling if they could be obtained so there is anywhere from 3 to 6 years before there could be drilling on any of these areas.

The problem with the moratorium is precisely the question you raised earlier, Mr. Chairman. It creates leverage for a handful of Congressmen in a single delegation to sit down and negotiate what will and will not be included on a tract-by-tract basis, which is clearly not what was contemplated by the OCS Lands Act.

The OCS Lands Act contemplated that the Secretary would be charged with trying to balance and weigh the State interest and the national interest. Great weight is put upon what the State tells us, and we have enormously complex and detailed arrangements for hearing from the States.

This clearly injects the Congress into the final decisionmaking. Frankly, Mr. Chairman, I am sure the authors of the OCS Lands Act had to recognize that if this issue were left to a local veto, there would be very little OCS activity in Federal waters.

The CHAIRMAN. What does the appropriations moratoria on OCS activities allow the Department of the Interior to do?

Secretary HODEL. We believe, Mr. Chairman, that the language in the moratorium is different for southern California, northern and central California, and also for New England. New England prohibits any activities, including presale activities.

Northern California and southern California are not specific in that direction. They prohibit leasing activities, and in one case exploration. It appears to us that that would permit us to prepare a sale, to ready a sale, do the prelease work that is necessary, but we could not conduct the sale.

I would be happy to supply for the record a chronology and lay out those languages.

The CHAIRMAN. If you will do so, it will be included in the record.

[The information follows:]

In opinions dated February 25, 1982, and November 7, 1983, concerning OCS leasing moratoria restrictions, the Department of Interior's Office of the Solicitor has determined that prelease activities, where not specifically prohibited, will be allowed. These pre-lease activities include: (1) contracting for environmental studies; (2) conducting Area Identification; (3) publishing a Call for Information and Nominations; (4) preparing and publishing a draft environmental impact statement; and (5) issuing permits for geological and geophysical exploration. Also attached is a chronology of past OCS leasing moratoria language from FY 82-FY 85.

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 82 DOI Appropriations	P.L. 97-100 (signed 12/23/81)	Central and Northern California	"Sec. 109. No funds provided in this title may be expended by the Department of the Interior for the procurement, leasing, bidding, exploration or development of the Point Arena, Bodega, Santa Cruz or Eel River basins of Outer Continental Shelf Lease Sale numbered 53."	Prohibited 4 northern basins. (736,000 acres)
FY 83 DOI Appropriations	P.L. 97-394 (signed 12/30/82)	(1) Central and Northern California	"GENERAL PROVISIONS" "Sec. 107. No funds provided in this title may be expended by the Department of the Interior for the procurement, leasing, bidding, exploration, or development of lands within the Department of the Interior Central and Northern California Planning Area which lie north of the line between the row of blocks numbered N816 and the row of blocks numbered N817 of of the Universal Transverse Mercator Grid System."	Expanded prohibition from basins to the Central & Northern Planning Area, down to Morro Bay (N816 and N817). (For a total of 35 million acres)
		(2) 55 Canyon blocks offshore New Jersey.	"Sec. 108. No funds provided in this title may be expended by the Department of the Interior for the procurement, leasing, bidding, exploration, or development of the following tracts within the Block, Hudson, Toms, Carteret, Lindenkohl, Spencer, Wilmington, Baltimore, Washington, or Norfolk Canyons of Outer Continental Shelf Lease Sale Numbered 76: Block Canyon, NK 19-10: 945, 946, 989, 990; Hudson Canyon, NJ 18-3: 290, 291, 334, 335, 336, 379, 380,	Prohibition expanded to canyon head tracts offshore New Jersey. (318,000 acres)

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 83 DOI Appropriations (cont.)		(2) 55 Canyon head blocks offshore New Jersey.	423-427, 467-471, 513-515, 558, 559; Toms Canyon, NJ 18-3: 815, 859; Lindenkohl Canyon, NJ 18-6: 193-194; Wilmington Canyon, NJ 18-6: 491, 492, 535, 536, 579, 580, 624; Baltimore Canyon, NJ 18-6: 750, 751, 794, 838, 882, 883; Washington Canyon, NJ 18-8: 515, 516, 559, 560, 604; and Norfolk Canyon, NJ 18-8: 907, 908, 909, 951, 952, 953, 997."	
FY 84 DOI Appropriations	P.L. 98-146 (signed 11/4/83)	(1) Central and Northern California.	"GENERAL PROVISIONS" "Sec. 107. No funds provided in this title may be expended by the Department of the Interior for the procurement, leasing, bidding, exploration, or development of lands within the Department of the Interior Central and Northern California Planning Area which lie north of the line between the row of blocks numbered N816 and the row of blocks numbered N817 of the Universal Transverse Mercator Grid System."	Same language for C. & N. California as found in the FY 83 Appro. Bill. (35 million acres)
		(2) North Atlantic	"Sec. 108. No funds provided in this title may be expended by the Department of the Interior for the preparation for, or conduct of, pre-leasing and leasing activities (including but not limited to: calls for information, tract selection, notices of sale, receipt of bids and award of leases) of lands within:" Subsections (a) - (d) describe the specific areas of the North Atlantic Planning Area prohibited.	Prohibition expanded to the North Atlantic. (8.2 million acres)

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 84 DOI Appropriations (cont.)		(2) North Atlantic (cont.)	"(e) Nothing in this section shall prohibit the lease of that portion of any block described in subsection (d) above which lies outside the geographical boundaries of the submarine canyons and submarine canyon heads	Portion of lease outside a canyon, can be leased.
			described in subsection (d) above: Provided, That for purposes of this subsection, the geographical boundaries of the submarine canyons and submarine canyon heads shall be those recognized by the National Oceanographic and Atmospheric Administration, Department of Commerce on the date of enactment of this Act.	NOAA to delineate the boundaries of the canyons and canyon heads.
			(f) Nothing in this section shall prohibit the Secretary of the Interior from granting contracts for scientific study, the results of which could be used in making future leasing decisions in the planning area and in preparing environmental impact statements as required by the National Environmental Policy Act."	Allows for scientific study in prohibited areas.
		(3) Eastern Gulf of Mexico	"Sec. 109. No funds provided in this title may be expended by the Department of the Interior for the leasing of the following areas located in the Eastern Gulf of Mexico Outer Continental Shelf:" Subsection (a) describes the Seagrass beds;	Prohibition expanded to the Eastern Gulf of Mexico. (7.4 million acres)

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 84 DOI Appropriations (cont.)		(3) Eastern Gulf of Mexico (cont.)	subsection (b) describes the Florida Middle Ground; subsection (c) describes the area within the 20-meter isobath south of 26° N. latitude, and subsection (d) describes the 20 and 30 mile buffer off the west coast of Florida.	
			"The limitation with regard subsection on the use of funds shall not apply if any State-owned tide or submerged lands within the area described in this section are now or are hereafter subject to sale or lease for the extraction of oil or gas from such State lands;" "(e) For these tracts offered for lease in Sale #79 which are located south of 26° N. latitude, the following lease stipulations shall apply:	Added "Senator Johnston proviso" which negates the 20-30 mile buffer zone if the State of Florida has existing leases in State waters, which it does. (later amended, by striking this proviso, in the FY 84 supplemental.)
			(1) No exploratory drilling activities will be approved by the Department of the Interior until it has accumulated 3 years worth of physical oceanographic and biological resource data; and	Stipulations for tracts below 26° N.
			(2) Lessees will be required to perform biological surveys prior to approval and initiation of exploration or drilling operations and to work in cooperation with the Department of the Interior on the monitoring of any subsequent drilling activities."	

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 84 DOI Appropriations (cont.)		(4) Southern California	"Sec. 113. No funds provided in this title may be expended by the Department of the Interior for the lease sale of tracts in Lease Sale numbered 80 within the following areas:"	Added prohibition in Southern California. (1.8 million acres)
			(1) describes tracts extending from Newport Beach south to the Mexican border and extending from approximately 3-21 miles offshore.	
			(2) describes tracts in the Santa Monica Bay area.	
			(3) describes tracts in the 3-6 mile band extending around the Channel Islands Marine Sancturay.	
			(4) describes tracts comprising the Santa Barbara Channel Ecological Preserve.	
			"This section shall not affect the authority of the Secretary of the Interior to approve any plan, or to grant any license or permit, which is restricted to scientific exploration or other scientific activities, or other preleasing activities necessary up to the point of the sale."	Allows for scientific study in the area.

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 84 Supplemental Appropriations Bills	P.L. 98-181 (signed 11/30/83)	Eastern Gulf of Mexico	Amends DOI FY 84 Appropriations Bill (P.L. 98-146) "Section (d) of section 109 of the Act entitled "An Act making appropriations for the Department of the Interior and related agencies for the fiscal year ending September 30, 1984, and for other purposes" (Public Law 98-146), is amended by striking out "The limitation with regard to this subsection on the use of funds shall not apply if any State-owned tide or submerged lands within the area described in this subsection are now or hereafter subject to sale or lease for the extraction of oil or gas from such State lands; and" and insert in lieu thereof "The limitation with regard to this subsection on the use of funds shall not apply to submerged lands within 30-nautical miles off any Florida land mass located south of 26 degrees north latitude;"	Removed the "Johnston proviso" which would have nullified the 20/30 mile buffer off the west coast of Florida. Also, clarified that the buffer zone extended down only to 26° N. latitude.

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 85 Continuing Resolution (DOI Appropriations bill contained in CR.)	P.L. 98 - 473 (Signed 10/12/84)	(1) Central and Northern California	"GENERAL PROVISIONS" "Sec. 107. No funds provided in this title may be expended by the Department of the Interior for the procurement, leasing, bidding, exploration, or development of lands within the Department of the Interior Central and Northern California Planning Area which lie north of the line between the row of blocks numbered N816 and the row of blocks numbered N817 of the Universal Transverse Mercator Grid System."	Same Language for Central & Northern California as found in FY 83 and FY 84 Appropriations Bills. (35 million acres)
		(2) Southern California	"Sec. 111. No funds provided in this title may be expended by the Department of the Interior for the lease sale of tracts in Lease Sale Numbered 80 within the following areas:" (1) describes tracts extending from Newport Beach south to the Mexican border and extending from approximately 3-21 miles offshore. (2) describes tracts in the Santa Monica Bay area. (3) describes tracts in the 3-6 mile band extending around the Channel Islands Marine Sancturay. (4) describes tracts comprising the Santa Barbara Channel Ecological Preserve.	Same language for Southern California as found in FY 84 Appropriations Bill. (1.8 million acres)

Appropriations Bill	Public Law	General Area Of Prohibition	Language from Statute	Comments
FY 85 Continuing Resolution (continued)	P.L. 98 - 473 (Signed 10/12/84)	(2) Southern California (cont.)	"This section shall not affect the authority of the Secretary of the Interior to approve any plan, or to grant any license or permit, which is restricted to scientific exploration or other scientific activities, or other preleasing activities necessary up to the point of the sale."	
		(3) North Atlantic	"Sec. 108. No funds provided in this title may be expended by the Department of the Interior for the preparation for, or conduct of, pre-leasing and leasing activities (including but not limited to:calls for information, tract selection, notices of sale, receipt of bids and award of leases) of lands within:" Subsections (a) - (d) describe the specific areas of the North Atlantic Planning Area prohibited.	Same language for North Atlantic as found in FY 84 Appropriations Bill. (8.2 million acres)

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
FY 85 Continuing Resolution (Continued)	P.L. 98 - 473	(3) North Atlantic (cont.)	"(e) Nothing in this section shall prohibit the lease of that portion of any block described in subsection (d) above which lies outside the geographical boundaries of the submarine canyons and submarine canyon heads described in subsection (d) above: Provided, That for purposes of this subsection, the geographical boundaries of the submarine canyons and submarine canyon heads shall be those recognized by the National Oceanographic and Atmospheric Administration, Department of Commerce on the date of enactment of this Act. (f) Nothing in this section shall prohibit the Secretary of the Interior from granting contracts for scientific study, the results of which could be used in making future leasing decisions in the planning area and in preparing environmental impact statements as required by the National Environmental Policy Act."	

Appropriations Bill	Public Law	General Area of Prohibition	Language from Statute	Comments
Conference Report FY 85 Continuing Resolution	P.L. 98-473	NA	"The managers note that this is the fourth year in which OCS moratoria have been included in this bill. The managers will not continue such blanket moratoria in the future unless a case can be made that the pre-lease negotiation process with the Department of the Interior is inadequate to ensure that all resource values and Department of Defense needs are provided proper consideration and protection in specific areas, and then such moratoria will not exceed the geographic limit of such areas."	

The **Chairman**. Senator Johnston.

Senator **Johnston**. Thank you, Mr. Chairman.

Welcome, Mr. Secretary. I know you have a very difficult position. There is no way you can satisfy everyone on this issue. Maybe you can satisfy no one. But I know you are trying very hard, and I commend you for wisdom. If late arrived at, nevertheless, I think that is preferable to making what I think was a real mistake, and that is further politicizing this question of OCS drilling.

And that is the spirit of the conference agreement last year, to try to get away from the politics of it, understanding that politics is very real and very strong, but rather to deal with this question on the basis of environmental objections, real, tangible, provable environmental objections as opposed to what you might call site pollution, or the aesthetic considerations of drilling off our shores.

Now, Mr. Panetta talked about the process by which you arrived at this agreement, and seemed to have no objection to the procedure to the process, to your talking to people. Did you in fact consider the environmental arguments of all parties concerned?

Secretary **Hodel**. Senator, are you talking now about during the negotiation process, before we announced the preliminary agreement?

Senator **Johnston**. At any time.

Secretary **Hodel**. Yes; I think we did that clearly, and let me say it came in two categories. During the negotiations, what I heard was not that there were environmental problems that we couldn't solve, but that there were perceived to be environmental problems that we couldn't resolve—that there were political problems having a basis in a fear of environmental risk.

And as much as we would talk about oilspills and the fishing industry—that we can solve those—and the air quality—we have to comply or we are not going to have a viable program—and so on, it didn't solve the political problem.

When I went into California, I heard many of the same concerns raised, and I indicated to those audiences that I felt we could and had to resolve the substantive environmental issues. The one I could not solve was the one of view. The ultimate issue appears to me to be one of view, but the political basis is the problem we encountered, and I tried to take off limits those areas that were identified as specially environmentally sensitive.

Those are the areas with somewhat limited population. What I then encountered was that the areas of greatest political concern, of course, are the ones with the greatest population.

Senator **Johnston**. You did take off limits those areas that did have some legitimate environmental concerns?

Secretary **Hodel**. Yes; and let me say I did it on two bases, those that we thought had limited resources, such as Big Sur, which I announced we would not include in the 5-year plan regardless of whether we reached an agreement or not. Point Reyes is statutorily prohibited, but it kept coming up as an argument.

I said, well, let's make it plain we will not be drilling in Point Reyes. That is the area off the mouth of San Francisco Bay, Farallon Islands. Then I added to that four additional areas, two of which are protected by prior secretarial or administrative orders, and two of which have not been.

Senator **Johnston**. Let me say, I think there is a legitimate interest in not developing too fast and not putting too much up so the bids are low, and that is a legitimate concern of yours. It was more in that spirit, do I understand, that you took some of these things off limits, for example, Big Sur, rather than, and I agree with that, but is there a legitimate environmental objection that says that Big Sur is impacted by airshed or by an oilspill owing to the geology such that it should be put off limits?

Secretary **Hodel**. Except for the view, I think that we can provide a safe OCS Development Program that will not constitute a risk or a hazard to the substantive environmental values in that area. I do not believe that at the present time we can sell that politically in that area, and since there is limited resource, I felt it was appropriate to remove it.

Senator **Johnston**. As I say, politics is real, too, and I understand that, and I agree that you should not, because Big Sur is a magic place. I was there last summer. But are you telling me that off the coast of California you know of no environmental objection other than the objection of view to drilling anywhere along the coast, or are there some places that have particular environmental problems?

Secretary **Hodel**. There are some areas that have been excluded, and I would support that as marine sanctuaries, because we say in those areas we simply don't want the presence of other facilities. That is legitimate, it seems to me, and I have gathered from what you say you would also, so there are those areas. They have been identified and excluded.

Senator **Johnston**. Are there other areas where environmental groups or others have brought forth information suggested that they are environmentally sensitive, and you have simply disagreed with that information?

Secretary **Hodel**. The area of concern that is raised with regard to, for instance, the sea otter, is one that is sometimes raised. It seems to me we have established again that we are able to protect the sea otter.

There's a much greater hazard to the sea otter from abalone fishermen presumably than there is from drilling rigs. The sea otter has lived in an area where there have been seeps for thousands of years presumably and has managed to avoid the crude oil. A major spill, of course, could affect them, but we try to take protections, as you say, to prevent a spill, so we can protect them.

I think that that has been raised a number of times, but I think we can accommodate that concern. We can accommodate the concern about the migration of whales.

Senator **Johnston**. Well, Mr. Secretary, I know you are environmentally sensitive. That is what brought you into trying to get this preliminary agreement in the first place. But are you telling us here that there is, aside from the sight pollution, and aside from those areas that have already been taken off limits, there is no legitimate environmental objection to drilling off the coast of California?

Secretary **Hodel**. We have not resolved the issue with regard to air quality to the satisfaction of the State of California. I believe that we have to work with the State and reach agreement on the standards that we imposed on the Federal platforms.

We cannot be in the position of having an activity on the Federal OCS which causes local communities to be unable to attain their air quality standards. We are engaged in those discussions now about the standards to be applied. We don't have an issue until we reach the point of actual drilling taking place, which is a long way away.

So we have some time, and we are engaged in some extensive research work to develop modeling techniques to determine what the impacts, in fact, are.

Senator JOHNSTON. But those kinds of impacts don't adhere to any particular area, do they, or do they?

Secretary HODEL. It would affect an airshed. They affect an airshed like Santa Monica or the Santa Barbara area. That was the point of greatest concern. Interestingly, in the area that has substantial experience with oil drilling and production, Santa Barbara, I heard very little concern about oilspills and the other effects. There was considerable concern raised, however, about the potential on air quality because they are having trouble in that community meeting their air quality standards.

Senator JOHNSTON. And you are saying that you will come up with standards that will make the air quality acceptable or otherwise you will not drill?

Secretary HODEL. We have to do that, it seems to me, or we can't have a viable OCS program. It seems to me that that would present an enormously difficult problem for the Congress and certainly for the Secretary if we were proposing to go forward with a program that was going to cause communities to be unable to meet their Federal air quality standards.

Senator JOHNSTON. And that really is legitimate. When we created in this committee the Santa Monica Mountains and Seashore National Park, it was largely because of the airshed for Los Angeles that we wanted to preserve that area, and a lot less for its recreational potential than for the airshed, so that is quite important.

But I think it is very important when this matter comes to the floor of the Senate and on the House that we have the issues sharply defined. One of the issues is, should an area be able to put a place off limits to drilling simply because of the aesthetic consideration of looking off it at rigs? I think that is a very big issue.

It is very easy for us to say let's do it. We don't live there. We don't live on the coast. But I think somebody ought to decide that. But they should not be able to come in and vaguely say there are these huge environmental problems, the Shelf drops off more sharply, and therefore it is more dangerous, and there is danger of oilspills, when in fact if there are no such dangers we ought to sharply define that issue.

The issue is view pollution, to use one expression. It is political opposition as opposed to real environmental opposition. I want to commend you and urge you further to continue to negotiate on the question of environmental, real environmental objections, which is what we agreed to in the conference report, and to the extent that there are real environmental objections, those areas should not be drilled.

To the extent that there are not real environental objections, then I believe we should drill them, or at least we then ought to be able to put them up for consideration for drilling, and subject to the other considerations of pace of development, price of world oil, the need for it, all of those things, but they should not be taken off limits simply because with the exception maybe of Big Sur and maybe Point Reyes or whatever, just with the exception of the crown jewels maybe, we ought to go ahead and drill, in my view.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Mr. Secretary, I wonder if I could depart a little bit on what I assume is a presumption, and see if you share the same observations. Namely, every time that you propose a lease sale, the reaction from the environmental community and many concerned citizens associates itself immediately with commercial oil production as opposed to strictly the merits of exploration to find out if indeed there are recoverable commercial reserves in the area of the lease sale.

Secretary HODEL. Where there is opposition to a sale, the opposition usually does not focus on exploration, but focuses on the expectation of successful exploration, and therefore large development. It is the potential of damage from large developments which tend to be the subject of the debate.

Senator MURKOWSKI. I am glad you made that distinction, because my next question then is, are we not setting the cart before the horse, so to speak, in that we first have to find out if we have recoverable reserves in a quantity which will support production, and do not we have basically a check and balance in the sense that we can make a rational decision once we find substantial reserves, and that rational decision would be, do we want to run the risks of the environmental exposures to develop it, or do we want to not go ahead with the commercial development in the sense of saying, OK, we have gone past the exploration period, we know that there are reserves there, is it justifiable to bring those reserves to market, or are the environmental concerns legitimate enough to not bring that development into a reality?

Secretary HODEL. I think the problem is that opponents of drilling fairly accurately recognize, and I could not dispute this, that if we ascertain with confidence that there is a substantial oil potential in a given area, they recognize that if that is established, it would be very difficult for them to resist the drilling.

Therefore, the best way to avoid that confrontation would be to avoid the exploration.

Senator MURKOWSKI. Well, that is true, but what percentage of lease sales—have you got any figures relative to some historical yardsticks that would indicate how many lease sales you have put up and how many of them have had commercial potentials recognizing that while you stated, I think, 50,000 to 80,000, was it a million barrels?

Secretary HODEL. Million.

Senator MURKOWSKI. In Alaska, you need over 300 million barrels to market, so it all depends on the economics. Can you give us for the record some idea what the percentage is of sales that have not resulted in any—or tracts, what percentage of tracts have not resulted in any commercial finds?

Secretary **Hodel**. I would like to provide a detailed and correct answer for the record, but let me just say summarily that a very small percentage, perhaps 1 percent or 2 percent of the tracts that are leased in any areas ever end up in production.

That is, the figures off the coast of California indicate that we have put up approximately 1,500 tracts for lease. Some few hundred were bid upon. I think 300 were accepted, 130 were explored, or some such numbers. They are correct in the record. Don't hold me to those numbers. And only 13, I think Senator Cranston indicated, have production on them, so it is a very tiny percentage.

One of the misconceptions, Senator, and you are getting at it, is that people have this vision that if you put up 150 tracts for lease, you are going to have 150 platforms. I heard one mayor say that he was going to fight to the death in effect to keep the coast of California from being one long drilling rig.

No one in his right mind even perceives that that would be possible.

[The information follows:]

In the Atlantic regions, 436 tracts have been leased, while 920 tracts have been leased in the Alaska regions. Of these, 1,356 tracts none have yet resulted in commercial finds.

In the Pacific regions, 480 tracts were leased, with 38 currently producing and 39 others considered producible. For the Gulf of Mexico regions, 5,558 tracts have been leased; 1,426 are currently producing, an estimated 400-500 produced previously but are now relinquished, and 326 tracts are considered producible. A significant number of tracts sold in areawide sales during the 1983-1985 period will also be produced, but it is too early to determine what this additional number will be.

Senator **Murkowski**. Mr. Secretary, you are continually confronted with concern by the States in that they don't have control or any substantive say in the disposition of whether or not there will be OCS development of commercial quantities off the individual State's coast.

What would be your attitude toward trying to enter into some kind of an understanding to try to address the cost of moratorium on lease sales and put the shoe on the other foot and suggest that if there are commercial quantities found after the lease sale has taken place, then the State through the Governor and the affected legislature of that State could effectively ban commercial development of that tract or those sales if the State so wished.

And that is a little different twist on the concept of moratoria or in effect to dictate from the State as to whether or not you hold a lease sale, which is the way it is now. That is the big dispute. Should the States have something to say about the lease sales on OCS areas? And we have argued that in our State at great length, but we have also seen most of our sales result in no commercial finds. We were exposed to the dilemmas of what would happen in the Gulf of Alaska, in the communities of Seward and Yakutat and on and on, but nothing was ever found.

But if you put the decisionmaking merits to a situation that would arise after you find commercial qualities and give the State then the right to reject that, would you not be able to ascertain your charge, which is to make this country energy independent by a consistent policy of uniform lease sales, but really leave the development up to the people that would be affected by putting the ability to veto any commercial activity at the end rather than the exploration?

Secretary **Hodel**. There are several problems that have come to mind as I listen to that. The first one is that it increases the uncertainty for the person bidding on a tract as to whether or not he will have something that is producible in the end.

He may find Prudhoe Bay, but if for whatever reason the State says no way, he is out of luck.

Senator **Murkowski**. Well, the way it is now he doesn't have an opportunity to bid because you don't put up the tracts.

Secretary **Hodel**. That's right, and of course he might very well be reluctant to bid. We think that in more than a few of our sales there has been less interest in bidding because of the threats of lawsuits and the existence of prior lawsuits that make very costly and very uncertain the ability to go forward.

Certainly the States have enormous power now. There are dozens of permits that are required for activities on the Outer Continental Shelf from the State before a process can go forward—before drilling or exploration can go forward. And once the find is established, then you have to comply again with the Coastal Zone Management Act and requirements of the State.

So the State almost has a veto now, in fact, so much so that again it could be chilling the effect.

Finally, it seems to me that if the State had an absolute veto, and maybe even in some circumstances now if the State determines it will not permit a process to go forward, maybe what would have to happen there is, the State ought to have a right to buy out at its market value the find which it is prohibited from developing.

Senator **Murkowski**. As you search for a formula, you will only have so many avenues available to you, and it seems to me that your charge is to make an inventory of the energy resources of this country, and very frankly, I don't know how you can possibly achieve it under the present situation where moratoriums come down, and those areas are exclusively eliminated, unless you address some other mechanism to give those States a safeguard at some step in the progression.

I just don't see how you can possibly get there from here. While you have presented some arguments that certainly have merit, particularly in lieu of the suggestion that if you come down with a major discovery, then you are limited to the whims of the State and the legislature.

But by the same token, is that so bad compared to where you are today, where effectively we are seeing ourselves in a situation where every proposed lease sale is blocked under the assumption that it is a commercial discovery, and you are not finding out whether there are commercial reserves or not.

And for my own part, in the role we play in Alaska, as a substantial reserve for future OCS lease sales, our concern is one that I have expressed earlier, the realization that all the attention on OCS lease sales will be focused in Alaska, which is bad from two standpoints.

It means an accelerated OCS exploration, which is not in our best interest, and it means also the possibility of zeroing in by the environmental groups that would like to see no OCS lease sale of any kind.

So, we are caught in that dilemma, and again, I am inclined to think that there is some merit for suggesting that you find a way to do your inventory, and leave it up to the States and the legislators and the Governors as well as the Federal Government to resolve the issue of, A, what is found, do we want to go ahead with the development scenario, and I don't think you are going to be any better off than you are now.

My last question, Mr. Chairman, is, Can you suggest any amendments to the OCS Lands Act that would eliminate or minimize the problems you have on the budget moratorium that realistically this committee could conceivably support and pass?

Secretary HODEL. It is my impression that the OCS Lands Act of 1978 spelled out a very adequate and detailed process by which the Secretary is required to seek certain objectives, and the details of how he seeks those is spelled out. What has happened is, because of the inclusion of moratoria in the appropriations act, that act has effectively been changed as to certain locations, but I think in the other locations it has worked very well. There is a longstanding record of changes that have been made by my predecessors and by me in the proposals for sales in response to requests and comments from the States.

I think that is a workable process. But it has not been permitted to work in certain locations.

Senator MURKOWSKI. You are not looking for any——

Secretary HODEL. I can't itemize at this point, but if you would permit me to consider the matter more carefully, if I have suggestions, I would welcome the opportunity.

Senator MURKOWSKI. I would appreciate your considering that and thinking a little more about the merits of where you are at and your expressed search of a workable formula, and the obvious recognition of this Senator from Alaska that you are not a magician, and perhaps that is the only thing that would work right now, and in lieu of that, whether we are not better off by going ahead and ensuring that we have a viable exploration program associated with OCS leasing, and just leave it up to the States to decide if it is found whether they are going to commercially bring it into reality.

I would urge you to impart upon this committee your suggestions on how you expect to come up with a workable formula after your experience in this California effort.

Thank you.

The CHAIRMAN. I think he is kind of like the process itself. He has found out some things not to do, but he hasn't found out what to do.

Senator Bumpers.

Senator BUMPERS. Mr. Secretary, we have heard, as you know, from Congressmen from both Texas and Louisiana this morning as well as Senator Johnston, and with all due respect to those Members of Congress, and with all due respect to their views on this, which certainly are as appropriate as any of the rest of us, I for one am not persuaded that simply because Texas and Louisiana feel that they have done their part from a national security standpoint, that that ought to be determinative as to what ought to be done in California, and I am trying to be as openminded and objective about this as I can be.

But you know, those States, as far as I know, there was little or no objection from either of those States to Outer Continental Shelf drilling, and it is true that about 90 percent of the gas and oil produced on the OCS is produced in those two States, but as I say, they are entitled to their opinions, and they are entitled to be upset because they think that California is a shirker.

But how much influence should the delegation and the Governor, how much influence should their opinions have on what we do on this issue?

Secretary **Hodel**. I think that the influence that is spelled out in the 1978 act is an appropriate level. It was structured, I am told, after 5 years of intense discussion, negotiation, and debate. It spells out the goals that are to be sought and the manner in which the Secretary is to seek them, and the responsibility he has to weigh the various considerations that come to him from the State.

That is a process that has been refined and rerefined, and I think can work and does work. It works off other States. It can work off California. It has worked off California in those areas that have not been included in the moratorium.

So, I think that that is a reasonable level, but I do believe that if we decide to provide a local veto on the development of the Federal resource, the net result in many instances will be that the Federal resource will not be available to the Nation. That may be a decision that Congress chooses to make. I would not recommend it.

Senator **Bumpers**. Did we not go a long way in making a decision like that and approving—I mean, every coastal State management plan has to be approved by Congress, does it not, or at least we have given them the authority to do that?

Secretary **Hodel**. I don't know the process, but we do have coastal zone management plans, very definitely, and you do have access to that.

Senator **Bumpers**. I think those were approved by generic legislation that said the States have the right to develop these plans. Is that not true? They didn't bring those plans back to us for approval, did they, or did they? Was I right the first time?

The **Chairman**. They don't have to come back.

Senator **Bumpers**. We gave them the authority to develop coastal zone management plans, and it has been a long time, but I remember that was a hotly debated issue when I first came to the Senate. But if this plan is in violation of that, that should play an important role, should it not?

Secretary **Hodel**. Yes, and it does because when the Department of the Interior leases a tract to a company, let's say off the coast of California, all we are really providing is an exclusive right for 5 or maybe 10 years, depending on the depth of the water, the right to that buyer to try to get the necessary permits to go forward. If he is not successful, he can't go forward with the State.

Senator **Bumpers**. As a part of that process, does he have to get approval from the coastal management plan and from the people who run that?

Secretary **Hodel**. Yes, he has to show compliance with the coastal zone management plan—in California it is the California Coastal Commission, and he has to show that the onshore facilities and the offshore activities——

Senator **Bumpers**. Will be environmentally acceptable, and so on?

Secretary **Hodel**. Yes. This is where the air quality issue becomes very critical offshore in California. That is why we are now in active discussions through the Governor's suggestion to try to figure out how to put those regulations together.

Senator **Bumpers**. What do you say to Mr. Panetta's assertion this morning that you and your staff presented them maps showing that 70 percent of the hydrocarbon potential was located in those 150 tracts?

Secretary **Hodel**. I say that there is just a total misunderstanding of the facts.

Senator **Bumpers**. Then that is not the case?

Secretary **Hodel**. That is not the case.

Senator **Bumpers**. And if you had your maps here right now they would not show that?

Secretary **Hodel**. The maps that I have here would show if we went down—this is the Eel River Basin. The orange on the outside would show—this is the coastline here. There is a 3-mile strip which represents the State water. The cross-hatched area indicates the tracts that are in the California OCS.

The red line represents the probable area of the basin, the Eel River Basin, but that is not a sharply defined location, so that is a probable. You will notice it runs onshore, and there is some activity onshore in gas production.

The green area within that is what we originally showed as the kinds of areas that we thought would be the areas of the highest potential, 900 such tracts along the coast. We could go down the coast and do this at each of the subsequent basins.

I then pressed the Minerals Management Service to reduce the number because I could see we had a very serious problem with the 900. I said, all right, if this were out but that were in, where do we stand, referring to general areas, and I ended up with 210 tracts.

Now, the 150 that the delegation——

Senator **Bumpers**. Are you willing to go over the 210 tracts now?

Secretary **Hodel**. No, not those 210 tracts. This is something I said to the delegation in the last meeting. I said, if you had come into this last meeting and said, "We will go with your 900 that you originally suggested, let's make a firm commitment right now."

What I would have said to them was, I recognized that until we had gone out publicly and asked what the consequences of that would be, in my case, both environmentally and resource, because that is my responsibility, I couldn't enter into a final agreement, and therefore it was not appropriate to project as a final proposal something that I had concerns about.

The 150 tracts don't overlap the 210 totally to begin with. There is a partial overlap, but not a complete overlap. They were also working from some other maps which Congressman Panetta had with him earlier, which were based on indications of industry interest. That is where you get these numbers like nines, eights, down to one.

Senator **Bumpers**. They were graded?

Secretary **Hodel**. Yes, but that is a very problemmatic grading, because that is an old that system that we used to get as part of the tract selection process, and frankly, just because you put up tracts with a lot of nines in it doesn't necessarily mean you get a bid.

They are bidding against other people. They don't want to tell everything they think they know so the numbers may not be totally reliable. But they indicate trends in areas, and that is, I think, what Congressman Panetta was looking at, trying to come up with something that would look good, but you ended up with some tracts that had ones in them and would not have been on our list of 210.

And it seems to me what it suggests is, in order to try to work our way out of this moratorium, which is not an appropriate way to proceed, we are trying to work toward an equation on the one side that will be generally acceptable environmentally.

And that is why I was willing to consider something that, if I were actually responding to industry pressure, I wouldn't be considering because I think the industry's view is that you should not restrict in any such fashion, or in such a limited way, this potential resource.

I am trying to get to this equation. If we can find something that is environmentally acceptable and produces a significant share of the resource, then maybe we have found a way to solve the problem for this committee as you hoped earlier.

Senator **Bumpers**. Why would it not be possible for you all to agree on, No. 1, the areas that you consider to be so aesthetically pure that you can both agree that that overcomes the potential benefit from drilling?

You mentioned Big Sur. You mentioned some other areas. And obviously the Senators and Mr. Panetta and other members would agree with you on that. So you just take those out on the front end.

Then you find where the chief differences between you are, because I would like to see it negotiated. I think the chairman and I would both agree we would rather not get involved in this if it can be resolved in a sensible way that meets the energy goals and the aesthetic values both.

But once you do that, you decide on the ones that you disagree strongest on, then possibly agree all of those or a portion of those be test drilled to try to determine what the real hydrocarbon potential is.

We have been fooled so many times, I am singularly unimpressed with all the maps I see any more about potential, because every one of them have fallen through the cracks.

Secretary **Hodel**. Not quite everyone, but an awful lot of them.

Senator **Bumpers**. Most of them have. I can remember Ted Stevens, and no reflection on Ted, saying, if you all just open up the Beauford Sea, I promise you will be energy independent for the next 100 years. So we opened up the Beauford Sea, and it is as dry as the top of this desk.

Secretary HODEL. The real message for this country is that we are playing Russian roulette with our future in terms of——

Senator BUMPERS. That is true, and I don't like that better than anybody else.

Secretary HODEL. And I know that, and I appreciate your efforts to try to find a way through this. What I find is that by excluding certain areas, by saying, OK, Big Sur is off limits—in fact, I kiddingly told the delegation as soon as they said that about Big Sur, I found out that it extended from the Mexican to the Oregon border, because that was the reaction, that when I took those areas off limits because I felt that they were either, you know, statutorily prohibited or they had limited resources, but had high resistance to any activity there, what I found was the intensity of the opposition then shifted to other areas.

I think you were not here at that moment, but earlier I said to the chairman, I may have made a mistake in taking those tracts off the table because as soon as they were off the table the resistance could then shift with equal fervor to other areas.

And what I really began to hear was not that these areas that were environmentally somewhat less developed were the ones that should be protected, but rather that the areas with the higher population should now not face OCS activity.

That really becomes a political consideration. I think it highlights the fact that if we leave the development of the Federal OCS to the veto of a local jurisdiction, we won't have that activity.

Senator BUMPERS. I would not suggest that they have an absolute veto, but I just wanted to explore—you know, I know if it were in my State—I am an inland State, and in a sense have no right to discuss a part of this. I have a perfect right as a member of this committee to worry about our energy future, and that is what I am worried about. But let me just go on.

Sometimes I am glad the Republicans control the Senate, because they have to sit here constantly, and I can leave any time I want to. So I don't want to impose on the chairman's generosity and his time, but I do want to say that, you know, that one of—you and I have discussed two or three times already, as I have with every Interior Secretary for 6 or 7 years now the problems of the onshore leasing problem.

And, of course, one of my primary concerns is that I feel that we have given up literally billions of dollars needlessly in the last several years by what I consider an onshore leasing policy that is scandalous, always has been, always will be until it is amended.

And incidentally, I want to thank you, because I understand some of the initiative came from your office. We have been talking to some of your people, and we think we are moving toward a resolution of that. And I want to thank you for that, and we will pursue that, and maybe even by the end of this year we will get something we can both live with on that.

Secretary HODEL. I certainly hope so.

Senator BUMPERS. One of my concerns, though, has been in that program we are literally participating, in that case we are participating in a fraud, because we are allowing unnominated tracts to go out that are virtually worthless and allow a bunch of scam artists to take advantage of innocent people, and the lottery and those kinds of things really deprive the Federal Treasury of a lot of money.

Now, GAO says that we are moving toward doing the same thing by a different method, by putting up too many tracts and therefore driving down the price of these tracts. The tracts aren't going to be worth anything like they used to be anyway because of the value and because of the cost of drilling and so on, and I recognize that.

But is there not some validity to the GAO criticism?

Secretary **Hodel**. We do not think that that report was particularly well done. They were not permitted to show it to us for review before they had to submit it, and that is probably not entirely fair to them, and therefore we were in a position of having to respond to it and point out what we thought the flaws were, which we will do for the record here.

I am not sufficiently familiar to comment on the good aspects of it. The parts I have had to comment on were the ones that we thought were flawed. I think that it is very difficult. First of all, it is a very difficult area for them to try to evaluate, just as difficult for us. Their formula, I am told, is extremely sensitive to the assumptions that are made about what would have been bid and what might be bid in the future.

We will establish that the current system, which is a reduced number of tracts being made available, we will show clearly that we are getting lower bids per tract today than we were 3 years ago under an areawide. That will not prove that areawide gets higher bids. What it proves is that the market has changed, and one other thing. It goes back to the point you were making about simultaneous.

Once an area has been leased, the next time around you ought to see somewhat less interest because unless they have learned something brand new and changing, there is less excitement, and the third time and fourth time these tracts are culled over, so that should be where we have had substantial leasing less interest, the combination of market price——

Senator **Bumpers**. The Office of Mineral Resources evaluates this for you in your office. Do you know for a fact that there would be competitive interest in the 210 leases that you first suggested?

Secretary **Hodel**. No, we do not know that. We would have to put them up and find out. The point made earlier was so right. We don't know until we drill. We have made estimates in the past of where the interest would be. I was the Under Secretary when I had to evaluate the bids on an east coast sale.

It turned out our geologist had viewed the structure as tilted in this fashion, and the industry geologist had viewed it as tilted just the reverse. So we got low bids where we thought we should have high bids, and high bids where we thought we should get low bids, and later we thought they might be right.

But under our evaluation system I had to reject all the bids in the less likely areas because they were low by what our standard was, and it showed that geologists can't agree, and then when you drill, you find in those cases they found nothing.

Point Arguello has turned out to be the biggest offshore field right now off California. When that was first put up for sale we did not expect it to be very exciting. It drew a very large bid. Some-

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body knew more than we did, and they have since produced large amounts of oil.

And it is important to recognize, and I know you do, Senator, but for the record I want to make it clear we get the bulk of our return to the National Government from the production of royalties and the payment of taxes.

The bonus is important, but in this day and age it is probably less important than it was because of the reduced levels of interest, but the real payoff to us is not only in taxes and royalties, but it is also in the savings and imports.

I certainly recognize the California OCS won't solve the import problem. But it can make a big dent, and does make a big dent, and that is important to the country.

Senator **Bumpers**. Let me ask you a question, and I will close with this, Mr. Chairman. Do you agree with the President's taking away the intangible drilling cost deduction of the oil companies?

Secretary **Hodel**. Senator, my view is, when the decision has been made by my boss as to how he wants to proceed, I am going to support him.

Senator **Bumpers**. When I was Governor, that is what I expected from my subordinates, too. I won't ask you to comment further, but I will tell you sometimes I get accused of having an antioil bias, but I feel very strongly about intangible drilling costs. You know, we don't have very many rigs working in this country right now. You take that away, and I promise you the number of rigs in operation, those started are going to drop precipitously.

So, on the one hand we are arguing about opening up the Outer Continental Shelf in order to achieve energy independence, and on the other going for a tax policy in my opinion that is going to have not only an offsetting but probably more than an offsetting impact.

Secretary **Hodel**. I believe the Department of Energy's figures, which were produced after I left, but I still would accept them as valid—I don't know what its current status is in the discussion—were that the effect of Treasury II would be that there might be a possible reduction of 130,000 barrels a day in national production.

And that, by the way, is a number that would be disputed by some people in industry who would place it much higher, but if that is a correct assessment, it is a relatively small share. On the other hand, it is a significant amount of oil.

Senator **Bumpers**. I consider it significant.

Thank you, Mr. Chairman, and thank you, Mr. Secretary.

The **Chairman**. Thank you, Mr. Secretary. I have no further questions at this time.

I might just announce that we will try to hear the first panel, then recess until the hour of 2 o'clock to hear the remaining panels, and I would have gone further, but some of the members of the second panel were anticipating that they would not be heard before lunch, and therefore are not here.

I understand that we have a number of votes on the floor of the Senate starting at the hour of 2 o'clock. So in spite of the fact that we intend to start at 2 p.m., that may be subject to some interruptions, but we still intend to start.

Thank you very much for your attendance, Mr. Secretary.

Now we will hear from Mr. John Sauernman, deputy attorney general from California, the Honorable Tom McClintock, State Assemblyman, Ventura County.

Gentlemen, your prepared statements will be placed in the record. I know you have come a long distance. I don't mean to cut off your testimony or abbreviate it unduly. It is obvious we don't have a big audience, and I am sorry for that. I can't control that. Your prepared statements will appear in full in the record. You are invited to briefly summarize the points you wish to make.

Mr. Sauernman.

STATEMENT OF JOHN K. VAN DE KAMP, ATTORNEY GENERAL, STATE OF CALIFORNIA, AS PRESENTED BY JOHN A. SAUERNMAN, DEPUTY ATTORNEY GENERAL, CALIFORNIA STATE ATTORNEY GENERAL'S OFFICE

Mr. **Sauernman**. Thank you, Mr. Chairman.

I am pleased to appear this morning on behalf of my boss, who is John Van de Camp, the attorney general of California. If I could, I would like to summarize the fact that the attorney general did support the compromise agreement between the Secretary and the delegation.

We are an agency which has frequently been involved in the litigation that has been referenced from time to time, and from our point of view, I think we collectively heaved a sigh of relief just as Mr. Bumpers said he did when the agreement was announced, because we felt that it probably meant that the amount of litigation and the amount of time we would have to devote to this issue would be considerably reduced.

Now that the preliminary agreement has apparently gone by the board, I think what I would like to urge upon this committee is the point of view that if there are to be continuing negotiations between Secretary Hodel and the delegation, there appears to be some willingness on behalf of both to go forward with that.

It does appear that continuation of the moratorium is necessary in order to provide an incentive for those discussions, and I base that point on the fact that Secretary Hodel here as well as before the House last week said fairly candidly that without the moratorium vote, without the presence of the moratorium, he would not have been talking to the delegation, and I think if we want this problem resolved, we have to have an incentive on behalf of both sides to continue the discussions.

Mr. Packard, who represents the San Diego area, made the suggestion, which I think may be a good one, that perhaps the way to go is to impose the moratorium until the negotiations are fruitful, at which point a negotiated agreement can be legislated.

I would also like to take a moment to comment on some of the views expressed this morning that the only real problem along the California coast is the view problem. I think there are in fact serious environmental problems that haven't been mentioned this morning. Certainly air quality has been mentioned.

The department is working with California State agencies to try to resolve that problem. However, it has been the subject of over 4 years of work, and we haven't yet got a resolution. I am hopeful that the most recent negotiations will resolve it, but that remains to be seen.

One point that wasn't mentioned by Secretary Hodel with regard to environmental impacts, which I think must be mentioned, is that the real problem, one of the major problems associated with OCS development is not out in the water, but is onshore.

OCS development does not occur in a vacuum. It is a heavy industrial activity that needs support facilities. It needs processing facilities. It needs pipelines. And most of these sorts of facilities have to be located onshore someplace.

I think one of the concerns that you find from the residents along the California coast is that they have economies which are based not on heavy industrialization. They have economies which are tourist-based, and they are very concerned about the impacts of these onshore facilities which would be necessary in order to support OCS development.

Senator Murkowski raised the point about altering the OCS process, and that has been raised before, and I think actually it was discussed in 1978, in the course of amending the OCS Lands Act, to separate out the exploration stage from the development stage.

That may be an approach worth investigating, but I think it must be emphasized that under the current state of the law, when a company buys a lease in a lease sale, it is not just buying a piece of paper. It is buying a right to explore, and if commercial quantities of oil are found, it is buying a right to develop that oil.

And at this point, without substantial amendments to the OCS Lands Act, those rights will continue to exist, and I don't believe that without those amendments, that Senator Murkowski's proposal could be implemented.

Another point which has been raised that I would like to address is the question of litigation, because Mr. Hodel seems very concerned about the idea that even if he found a compromise agreement that was acceptable to the delegation, the delegation couldn't ensure that there would be no lawsuits filed.

As one who has been very heavily involved in the litigation over the California OCS in the past, I think it has to be—it can't be too strongly emphasized that those lawsuits aren't brought for frivolous reasons. They allege serious violations of law, and in many instances the courts have recognized the seriousness of the potential violations.

I think for the Secretary to say that, well, we don't have a deal unless you can guarantee to me no litigation is wrongheaded, if you will. The Secretary can guarantee no litigation by following the law when he conducts an OCS lease sale.

I think in those instances where the Secretary has worked with the State and ensured that all aspects of the law have been followed, he has been able to proceed with the lease sale without litigation, and the most recent example of that in California is lease sale 80, which is a southern Calfornia lease sale conducted in October 1984.

There was a threat of litigation there about the air quality standards that Interior proposed to impose on successful bidders. My office theatened litigation, and Interior, in reviewing the situation, agreed to modify the stipulations, to strengthen them, and the lease sale went forward without any lawsuits.

Another point that I think bears emphasis, although even Secretary Hodel recognized it in his testimony, is that California is a major producer of offshore oil and gas. Right now the California OCS produces around 85,000 barrels of oil a day, but that is projected to increase by the end of this decade to over 500,000 barrels of oil a day, and some projections say that will move us into the Number Two position as an offshore producer in the country.

I think for those who claim that California is not bearing its fair share, is not contributing to our energy supplies, that the numbers, the amount of energy which California produces simply doesn't substantiate those claims.

I think also for the administration to raise this specter of California not bearing its fair share is quite inconsistent with other aspects of administration policy. I think perhaps the most egregious which comes to mind or the most recent example is with regard to mileage standards.

There is currently a proposal from the administration not to enforce the mileage standards against Ford and General Motors for this production year and maybe for several more production years.

Well, the projections are that for each production year that you don't enforce those mileage standards, those cars are going to need 1.54 billion gallons of gasoline.

That is 80 to 85 billion barrels of gasoline for each year. And if we are going to have a consistent and coherent energy policy, one of whose goals is to free us from foreign dependence, then such relaxation of energy standards and burning of fuel that could be conserved just doesn't seem right.

I think I would like to close, Mr. Chairman, by saying we are happy that there are prospects of continuing negotiation. We hope that those negotiations between the Secretary and the delegation will be fruitful. We also want to say that we are happy that Secretary Hodel has indicated there are some areas along the California coast that he will exclude from the 5-Year Program regardless of the negotiations.

But we have a caveat to that, which is that the Secretary, while saying that the areas will be excluded, has never described exactly where they are. To say that the waters offshore Monterey Bay are going to be excluded doesn't have a lot of meaning unless you say the waters 3 miles offshore, or the waters 6 miles offshore, and he hasn't, to my kmowledge, hasn't given us that specificity yet, and so any final judgment on the areas he is proposing to exclude has to wait until that comes.

And at that point, Mr. Chairman, I will thank you for the opportunity to present our views.

[The prepared statement of Mr. Van de Kamp follows:]

TESTIMONY ON BEHALF
of
JOHN K. VAN DE KAMP
ATTORNEY GENERAL, STATE OF CALIFORNIA
Before the
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

September 17, 1985

Presented by:

JOHN A. SAURENMAN
Deputy Attorney General
3580 Wilshire Boulevard
Los Angeles, California 90010
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I am JOHN A. SAURENMAN, Deputy Attorney General, and I am appearing today on behalf of John K. Van de Kamp, California's Attorney General.[1] I am pleased to appear before the Subcommittee today to explain why we basically support the agreement recently negotiated by Secretary Hodel and members of the California delegation dealing with leasing of the Outer Continental Shelf (OCS) offshore California.

A. An OCS Compromise is Necessary

Few dispute the great natural beauty of the California coastline. Along this coastline there exists undisturbed mountains, breeding grounds for endangered and threatened species and some of our nation's most heavily used beaches. Most people seem to agree that much of the California coastline should be protected from the industrialization that accompanies OCS oil and gas development.[2]

For over five years, we have been involved in nearly continuous litigation against Interior and its ambitious plans to lease the OCS offshore California. This litigation has involved two lawsuits challenging the validity of five-year OCS programs promulgated under section 18 of the OCS Lands Act, 43 U.S.C. § 1344 (California v. Watt (D.C. Cir. 1981) 668 F.2d 1290; California v. Watt (D.C. Cir. 1983) 712 F.2d 584), and three lawsuits seeking to bar Interior from proceeding with part or all of OCS lease sales (Sale 53--California v. Watt (C.D.Cal. 1981) 520 F.Supp. 1359, affirmed in part, reversed in part (9th Cir. 1982) 683 F.2d 1253, reversed sub. nom. Secretary of the Interior v. California (1984) 104 S.Ct. 656; Sale 68--California v. Watt (C.D. Cal. 1982) 17 E.R.C. 1711; Sale 73--California v. Clark, C.D. Cal. Civ. No. 83-7235, injunction issued November 29, 1983, injunction vacated (1984) 104 S.Ct. 540 (Rehnquist, J., in chambers). Moreover, currently pending in federal district court is a lawsuit brought by the Attorney General, a coalition of coastal cities and counties and environmental groups over Interior's grant of pre-lease exploration permits for drilling along the Northern California coast.

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[1] California's Attorney General is the chief law officer of the state. He possesses independent constitutional, statutory and common law authority to act to protect the people of the state and its natural resources.

[2] Secretary Hodel seems to have recognized this point recently both in his willingness to negotiate a compromise and in his statements that certain areas would be protected whether or not an agreement is formalized. However, it must be noted that many of the areas which the Secretary says he would protect are already protected from OCS development, e.g., the OCS Lands Act prohibits leasing within 15 miles of Point Reyes, Department of Commerce regulations bar oil and gas activities in the Farallen Islands National Marine Sanctuary, and Monterey Bay is completely in California state waters.

We have also been involved in controversies over the impact of OCS activities on California's air quality. A challenge by California to Interior's air quality regulations was filed in 1981 and is still pending. Currently, we are hopeful of resolving this case through a negotiated rulemaking with Interior which will result in rules for offshore activities which are comparable in strength to the rules applied to onshore industry.

Also, the list of litigation should include a reference to Lease Sale 80. Litigation seeking to prohibit Interior from conducting the entire sale was only narrowly averted at the last moment when Interior agreed to substantially strengthen the lease stipulations dealing with air quality controls.

This lengthy record of litigation is paralleled by the congressionally imposed moratoria. Over the past four years, Congress has felt compelled to limit Interior's use of its funding to prohibit leasing in a number of OCS areas offshore California, as well as other states. Despite this clear indication by Congress that it does not want all of the California coast leased, Interior has recently proposed a revision of its 5-year OCS leasing program which schedules lease sales for the whole coast.

My office does not like to continually litigate these issues with Interior, and we do not believe that yearly battles over congressional moratoria are a particularly efficient way of setting OCS policy. However, we have not had any effective alternatives with which to curb Interior's desire to lease along the entire California coast.

When Congress in 1978 enacted extensive amendments to the OCS Lands Act, it had three broad goals:

1. Provide a structure for OCS leasing and development which would limit the Secretary's discretion;

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2. Insure that coastal states would play a leading role in developing OCS leasing programs, lease sales, and in dealing with the development which follows leasing; and

3. Insure that Interior dealt substantively with the environmental and coastal zone impacts of OCS leasing and development.

In our view, the congressional moratoria have been far more effective than Interior in serving these goals.

B. This Compromise is Reasonable

In mid-July of this year, a compromise agreement was announced by Secretary Hodel and members of the California congressional delegation which finally gave hope for a real break with the past. For the first time, an Interior Secretary seemed willing both to listen to California's legitimate concerns over OCS development and to take substantive steps to address those concerns.

The agreement --reached only after extensive negotiations--would release some 150 tracts from the moratorium while protecting the remaining areas from leasing until the year 2000. Under the terms of the agreement, Interior would be allowed to lease in protected areas in the event of a national energy emergency. The agreement also provided for the drilling of three Continental Offstructure Stratographic Test wells (C.O.S.T. wells) in order to increase our knowledge of the oil and gas potential of the areas protected from leasing.

On August 30, the Attorney General announced that he supported the basic outlines of the agreement. However, there are several points which are of concern to us. First, we are concerned that a number of the tracts to be released from the moratorium are close to state waters and to state areas protected from oil and gas leasing under California law.

OCS development in these nearshore areas may result in oil beneath state land being drained by OCS activities. Because California must protect its own oil, this drainage may in turn trigger state leasing and development. State development will of course heighten the impacts onshore. Thus, we urged the creation of a buffer zone, between state waters and the OCS tracts to be released from the moratorium, which is wide enough to insure that OCS development does not drain California oil.

Section 8(g) of the OCS Lands Act, defines a drainage zone extending three miles beyond state waters. If adopted as a buffer, this zone would include only 1 tract offshore Newport Beach, 3 tracts offshore Oceanside and 2 tracts offshore Humboldt Bay from among those released for leasing under the agreement. If these nearshore tracts remain subject to the moratorium, then a comparable number of tracts in which industry is interested, but which are further from shore and are without overriding environmental concern, could be released from the moratorium.

Similarly, the compromise releases from the moratorium tracts in the Palos Verdes area. However, these tracts are both adjacent to state waters and are in the traffic lanes for vessels entering and leaving the Ports of Los Angeles and Long Beach. Because of the high volume of vessel traffic in this area, development of these areas would clearly be dangerous, and current Coast Guard regulations would limit such development. Again, these tracts might be left in the moratorium while others further from shore are released.

In making these suggestions, we wish to emphasize that wholesale modifications of the agreement are not appropriate. Instead, minor adjustments can be made which will result in an agreeable compromise benefiting the Californians concerned about their coastline while still allowing for rational OCS leasing.

It is clear that some 150 tracts will be released from the moratorium and made available for leasing. What is not so clear, and what Congress must make clear, is that leasing and development of these tracts will be conducted according to all applicable laws including the OCS Lands Act, the National Environmental Policy Act and the Coastal Zone Management Act. These statutes provide important environmental protections that must not be eliminated from the OCS development process.

For example, for tracts off Newport Beach, as elsewhere, the OCS Lands Act has established pre-lease procedures for detailed environmental reviews of leasing and of the impacts of development, and for consideration of the views of both the Governor and local governments. Also, before tracts can be explored or developed, they must be reviewed by the California Coastal Commission under the CZMA to insure that the exploration and development plans are consistent with our coastal management program. These procedures must be maintained.

It is of great importance that any development occurring on tracts currently within the moratorium areas take place in the least environmentally damaging manner possible. Drilling in these areas will be traumatic in its own right. The citizens of cities such as Laguna and Newport Beach need assurances that OCS development will not push them out of compliance with air quality standards or of cause pollution of their beaches.

The need to protect air quality, in particular, must be emphasized because a number of the tracts released from the moratorium are adjacent to Southern California which has existing, serious air quality problems. Development on these tracts must not further degrade onshore air quality. The most efficient way to accomplish this is for the agreement to specify that all leases include a provision that successful bidders must comply with the air pollution rules of the adjacent air quality control district. This should serve to minimize any adverse air pollution impacts from developing these tracts.

As a part of this compromise, the Secretary and the delegation agreed that tracts which are subject to the moratorium until the year 2000, may be leased earlier in the event of a national emergency. We understand the reasoning behind such a provision and support it, assuming that it cannot be invoked needlessly. We must recognize that an energy crisis cannot be immediately resolved through increased leasing of the OCS. The

OCS takes time to lease and develop, and an energy crisis would probably be long over before OCS oil from these tracts can come on-line. We have other, more effective tools to deal with the immediate effects of an energy shortage -- tools such as energy conservation and the Strategic Petroleum Reserve. We believe that before the areas protected in this agreement should be leased, it must be clear both that the other tools at our disposal are not being effective and that leasing of this area will in fact provide significant assistance in alleviating our energy shortage.

Finally, the agreement between Secretary Hodel and the delegation provides for three C.O.S.T. wells in areas offshore central and northern California. These wells produce core samples from far beneath the ocean floor which provide important information about the geology of these areas and their oil and gas potential. If new information, such as from these C.O.S.T. wells, shows it to be necessary, Congress can always reconsider this compromise in the future.

This compromise is not perfect. Compromises never are. However, this compromise is reasonable and it provides for a long-term solution to what has been a longstanding conflict. As such, we support it and believe it should be enacted into law.

C. The Arguments Against the Compromise are Wrong

The industry is reacting predictably to this compromise. For example, Art Spaulding of the Western Oil and Gas Association has stated that the agreement is "the first step toward bartering away the Nation's energy future," and T.D. Walker, public affairs manager for Chevron, has written that "the preliminary agreement plays Russian roulette with the California economy and with the Nation's security." Others have claimed that this agreement will increase our dependence on imports of foreign oil, will cause an increase in energy prices, or will cost our country thousands of oil industry jobs. We do not believe that these claims withstand critical review.

This agreement will not increase our dependence on imports of foreign oil nor will it cause an increase in the cost of energy. Those making these arguments forget that neither the past moratoria nor this agreement have any impact on development of California's most oil rich areas in the Santa Barbara Channel and southern Santa Maria Basin. California is now the nation's number three producer of OCS oil and gas behind only Texas and Louisiana. By the end of this decade, OCS production from California will expand to more than 500,000 barrels a day, likely moving us into the number two position. This agreement does not restrict this production, and by opening areas heretofore off-limits, it should allow for even more offshore production. Thus, California is now contributing significantly to our quest to end dependence on imported oil and will continue to do so.

Even if all the areas now under the moratorium were leased and developed, the oil extracted could fuel our nation for no more than two to three weeks. This is simply not enough oil

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to end dependence on imports or to have any meaningful impact on energy prices.[3]

This compromise agreement also will not adversely affect employment in California's petrolum industry. In the four years that the moratoria have been in place, California state agencies, including the California Coastal Commission, have approved OCS development projects that require $6 to $10 billion in construction. Examples include approvals for Exxon's Santa Ynez Unit (four to five platforms), development of the Pt. Arguello field (Chevron's platforms Hidalgo and Hermosa and Texaco's platform Harvest), development near Pt. Pedernales (Exxon's platform Independence and Union's platform Irene) and Shell's Beta project offshore Long Beach.

These approvals are not only for offshore platforms but also involve pipelines, a marine terminal, and onshore processing facilities. Moreover, not even included in this construction is the cost of re-working refineries so that they can process the heavy crude from these developments.

With all this development and construction occurring, it is very strange that complaints are being heard that the petroleum industry in California is losing jobs. We do not doubt that there seems to be a problem, but if California workers and companies are not getting their fair share of all this business, the cause must be that the oil companies have decided, for whatever reason, to take their business elsewhere. You may agree or disagree with this decision by the companies, but it cannot be attributed to the moratoria or to this agreement.

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[3] It also seems somewhat inconsistent for the Administration to question the impact of this agreement on our dependence on imports at the same time as it is attempting to relax federal mileage standards for Ford and General Motors. The Administration plans not to enforce the mileage standards against Ford and General Motors means that an extra 1.54 billion gallons of gasoline will be consumed by the cars they sell.

Furthermore, it must be remembered that many of the areas of the California coast not now subject to OCS development have economies based on recreation and tourism. In totalling what jobs may be lost and where, it must be remembered that OCS development places these recreational-tourist economies at risk. If the economies of these coastal cities are disrupted by OCS activities, then they will lose jobs.

In reviewing these complaints over this agreement, it must be noted that those making the complaints do not want a compromise. They are actually arguing that the entire California coast be opened for leasing without restriction. This type of approach can only lead to more acrimonious conflicts which will further disrupt rational OCS leasing.

Finally, we wish to address several points made by Secretary Hodel during his recent trip to California. First, it is not the case that disruption of the ocean view is the only impact about which Californians are concerned. OCS development is a heavy industrial activity. Oil rigs are major sources of air and water pollution which can affect both state waters and onshore air. OCS development means increased demand on fresh water supplies and increased vessel traffic. OCS development brings with it the heightened risk of oil spills from both platforms and tankers. OCS development requires both onshore support and processing facilities which must be located somewhere. These are not trivial concerns, and they obviously extend far beyond a disruption of the view.[4]

Secretary Hodel has also suggested that there cannot be an agreement unless the delegation can guarantee that the leasing of tracts released from the moratorium will proceed without lawsuits. This is a completely unreasonable demand. Those lawsuits listed earlier were not frivolous. They involved serious allegations that Interior had substantially violated the law, and in many instances the courts have found those allegations to be well-founded. The citizens of California should not be precluded from insuring that Interior is properly applying the law. If Congress gives Interior a guarantee of no lawsuits, it will have provided an invitation to Interior to avoid the restrictions now found in the law. If Interior follows the law, it will not be sued. Secretary Hodel should need no further guarantee.

D. Conclusion

This agreement is a compromise, and as such no one is totally happy with it. However, minor adjustments such as

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4. This is not to dismiss view as a relevant concern. An OCS structure 100 feet high must be over 13 miles from shore before a person standing at the shoreline can not see it. A structure 200 feet high must be over 18½ miles away to be invisible.

exchanging nearshore, sensitive areas for others further from shore with more industry appeal may make the compromise more acceptable.

Without an agreement such as this, we face the prospect of continuing litigation and repeated congressional battles each year over leasing on the California OCS. A compromise was the only way out of this cycle, and an appropriate compromise benefits all the interested parties.

While this agreement continues restrictions on leasing for many areas, the industry and Interior have more certainty in preparing for lease sales and can expect less litigation over such sales; local governments will know whether or not they need plan for OCS activities; and we will have protected many environmentally sensitive areas of the California coast. It was just this sort of balancing that Congress desired last year, when it directed Interior and congressional, state, and local officials to negotiate a compromise. We believe this agreement to be an appropriate compromise which should be enacted into law.

The Chairman. Thank you very much, Mr. Sauernman.
Mr. McClintock.

STATEMENT OF HON. TOM McCLINTOCK, MINORITY WHIP, CALIFORNIA STATE ASSEMBLY

Mr. McClintock. Thank you, Mr. Chairman.

Unlike our attorney general's office, I was very, very much distressed when I heard of the preliminary agreement from the standpoint not only of our Nation, but also from the standpoint of the State of California and my own assembly district.

I represent the coastal section of Ventura County. My district starts at County-Line Beach in Malibu and runs up the coast of the Rincon just south of Santa Barbara. It is about 30 miles of some of the most beautiful coastline I think we have in California. I might be slightly biased. We are all very proud and very protective of our little corner of this world.

When you come into Ventura County, you will see the signs proudly proclaiming that we are the gateway to the Channel Islands. My district includes the Channel Islands National Park. Channel Islands Marine Sanctuary is just across the channel from my district.

As you can imagine, we have a very strong, burgeoning tourism industry in Ventura County as a result of that important resource. It has brought in millions of dollars of new investment, thousands of new jobs to our area, and those all depend upon the environmental safety of our beaches and our shoreline.

Now, here is the paradox. In the last couple of years, the locally elected city councils of two of my coastal cities, Ventura and Port Hueneme, have unanimously adopted resolutions strongly opposing any continued moratorium, and strongly supporting the offshore industry.

And as a representative of 300,000 coastal constituents, I have absolutely no hesitation in urging you and your colleagues to resume offshore exploration off of our coast.

You might think that is somewhat adventuresome for a coastal representative to undertake. In fact, my campaign consultant thought the same thing when I first broached the subject to him in 1982. He did a poll. He found that 69 percent of the people in my coastal district support offshore drilling, providing that the usual safeguards are taken. Only 25 percent opposed it.

When Secretary Hodel came into Ventura County 2 weeks ago, we had 3,000 people turn out at the Ventura County fairgrounds, right on the beach, 3,000 people, to support the offshore industry and to oppose the preliminary agreement. When the Secretary decided to withdraw or at least stand back from the preliminary agreement, and we opened negotiations, every local paper in my district except for the Los Angeles Times had very warm words of praise for his decision.

In fact, the Los Angeles Daily News said the Nation has a responsible leader in Interior Secretary Hodel, and we hope his example will shame California's representatives into a grownup approach to the issue as well.

Those are pretty strong words, but they reflect very strong sentiments. In my coastal district we have had offshore drilling in Ventura County since 1896. We have learned, and we have seen the best and the worst of that industry.

My district is just a few miles south of Santa Barbara, where the oil spill occurred in 1969. We have learned through a lot of experience that if proper safeguards are taken, there is no conflict between the ecology of our area and the economy of our area. There is no conflict between preservation and progress. There is no conflict between the need to protect the beauty of our coastline and the need to provide for the prosperity of our people.

Let me make one point, and I think Senator Johnston hit it right on the head. We know what we are giving up by extending moratoria on this issue. We are giving up our Nation's energy independence. We are surrendering some 100,000 estimated new jobs generated in the next 10 years in southern California.

We are giving up $25 billion in oil and gas royalties in southern California over the next 10 years. What are we buying for that enormous price? I want to assure you that you are not buying any significant environmental protection for our coastline, and again I am saying that as a representative of 30 miles of that coastline.

We already have the most stringent environmental safeguards anywhere in the world in California. In addition to all of the Federal regulatory requirements, environmental safeguards that are imposed from this town here in Washington, offshore platforms have to pass some 18 separate State and local permits.

They run a 10-year regulatory process that includes constant scrutiny by the California Coastal Commission, the State Air Resources Board, the Division of Oil and Gas, the California Energy Commission, the State Lands Commission, and the Department of Fish and Game.

That is an awful lot of protection. I think that it has been summed up rather well that the only real issue involved here is—what was the word I heard Mr. Panetta use? Viewshed.

The Congressman from Texas, I think, was absolutely on target. He said, if you leave a half-inch between your fingers, hold it at arm's length, that is the largest platform closest to the coast that you see anywhere, at least on the Channel Islands.

And it seems to me that the 16,000 jobs of real people that I have in my district that are directly dependent upon the offshore industry is an awfully big price to pay for removing a few of those little tiny rigs off the horizon.

The tricounty area of Ventura, Santa Barbara, and San Luis Obispo Counties have had 6,000 to 10,000 oil workers laid off in the last two years, about half of those in my district. That is an incredible price to pay, and I hope that you and your colleagues will consider that very carefully as you deliberate on this important issue.

[The prepared statement of Mr. McClintock follows:]

STATEMENT BY ASSEMBLYMAN TOM McCLINTOCK

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

SEPTEMBER 17, 1985

MR. CHAIRMAN AND SENATORS:

MY NAME IS TOM MCCLINTOCK; AND I AM MINORITY WHIP OF THE CALIFORNIA STATE ASSEMBLY.

I REPRESENT COASTAL VENTURA COUNTY. MY DISTRICT STRETCHES FROM COUNTY-LINE BEACH IN MALIBU TO RINCON BEACH JUST SOUTH OF SANTA BARBARA --- I REPRESENT MORE THAN 30 MILES OF THE MOST BEAUTIFUL SHORELINE IN ALL OF CALIFORNIA --- AND SOME 300,000 COASTAL CONSTITUENTS.

I'M HERE FOR ONE PURPOSE, AND THAT IS TO DISPELL ANY NOTION THAT COASTAL CALIFORNIANS ARE OVERWHELMINGLY HOSTILE TO OFFSHORE DRILLING.

LET ME BEGIN BY SAYING THAT YOU WILL NOT FIND MORE JEALOUS GUARDIANS OF OUR COASTLINE THAN IN MY DISTRICT. MY REGION PROUDLY CALLS ITSELF THE GATEWAY TO THE CHANNEL ISLANDS. IT INCLUDES THE CHANNEL ISLANDS NATIONAL PARK. IN THE LAST DECADE AN ENORMOUSLY RICH TOURISM INDUSTRY HAS SPRUNG UP WITH THOUSANDS

OF NEW JOBS DEPENDING ENTIRELY ON THE BEAUTY OF OUR BEACHES AND SHORELINE. MY COMMUNITY WOULD BE DEVASTATED IN THE EVENT OF AN OIL SPILL. AND INDEED, JUST A FEW MILES TO THE NORTH IS THE SITE OF THE 1969 DISASTER, SO PLEASE BELIEVE ME WHEN I SAY THAT MY CONSTITUENTS AND NEIGHBORS ARE FAR MORE SENSITIVE TO THE ENVIRONMENTAL SAFETY OF OUR COAST THAN ANY INLAND CONGRESSMAN IN THE NATION.

AND YET, IN THE LAST TWO YEARS, THE LOCALLY ELECTED CITY COUNCILS OF TWO OF OUR COASTAL CITIES HAVE UNAMIMOUSLY ADOPTED RESOLUTIONS SUPPORTING THE GROWTH ON OFFSHORE DRILLING IN OUR REGION. THEY ARE ADAMANTLY OPPOSED TO ANY OFFSHORE DRILLING MORATORIA.

IT'S OFTEN SAID THAT EVERYONE WANTS OIL DRILLING, BUT NOT IN HIS BACK YARD. THEY'RE WRONG.

WHEN I WAS FIRST RUNNING FOR ELECTION IN 1982, MY NEWLY HIRED CAMPAIGN CONSULTANT ALMOST QUIT WHEN I TOLD HIM THAT I SUPPORTED OFFSHORE DRILLING AND I INTENDED TO SAY SO. HE SAID THAT WAS A GREAT WAY TO LOSE AN ELECTION, AND HE DID A PUBLIC OPINION POLL TO SHOW ME. THE POLL SHOWED THAT THE ELECTORATE IN COASTAL VENTURA COUNTY SUPPORTED MY STAND BY MORE THAN A TWO TO ONE MARGIN. I WAS ELECTED WITH 56% OF THE VOTE, SPENT TWO YEARS ON THE ASSEMBLY NATURAL RESOURCES COMMITTEE FIGHTING FOR OFFSHORE DEVELOPMENT, AND WAS RE-ELECTED LAST YEAR FROM COASTAL VENTURA COUNTY WITH 71.5 PERCENT OF THE VOTE.

WHEN SECRETARY HODEL HELD A HEARING IN VENTURA TWO WEEKS AGO, AT THE VENTURA COUNTY FAIRGROUNDS --- RIGHT ON THE BEACH --- OVER 3,000 PEOPLE TURNED OUT TO OPPOSE THE PRELIMINARY AGREEMENT AND TO SUPPORT EXPANDED OFFSHORE DEVELOPMENT.

I THINK THE BEST COMMENTARY ON COMMUNITY SENTIMENT IN OUR AREA CAME FROM THE LEADER OF THE SMALL BUT VOCAL GROUP OPPOSED TO OFFSHORE DEVELOPMENT WHO ADMITTED TO A NEWSPAPER THAT HIS GROUP WOULD NOT EVEN MAKE A PRESENTATION BECAUSE --- AND I QUOTE --- "WE'D BE SO OUTNUMBERED IT WOULD BE RIDICULOUS."

THE CALIFORNIA ASSEMBLY, WHICH IS NOTED FOR ITS STRONG ENVIRONMENTAL LEANINGS, HAS CONSIDERED A NUMBER OF ANTI-OFFSHORE-DRILLING MEASURES IN THE LAST THREE YEARS.

WITH 41 VOTES NEEDED FOR PASSAGE, THE MOST SUCH A MEASURE HAS RECEIVED IS 43 VOTES. MOST OF THESE MEASURES HAVE PASSED WITH THE BARE MINIMUM OF 41 VOTES AFTER SEVERAL HOURS ON CALL. AND MOST OF THOSE MEASURES HAVE FAILED PASSAGE IN THE STATE SENATE.

WHEN SECRETARY HODEL RETURNED FROM HIS HEARINGS IN COASTAL CALIFORNIA AND SCRAPPED THE PRELIMINARY AGREEMENT, THERE WAS A HOWL OF PROTEST FROM POLITICAL LEADERS HERE IN WASHINGTON. BUT IN MY COASTAL DISTRICT, EVERY LOCAL NEWSPAPER EXCEPT THE LOS ANGELES TIMES HAS EDITORIALIZED IN SUPPORT OF THE ACTION WITH WARM WORDS OF PRAISE.

THE LOS ANGELES DAILY NEWS SAID --- "THE NATION HAS A RESPONSIBLE LEADER IN ITS INTERIOR SECRETARY --- WE HOPE HIS EXAMPLE WILL SHAME CALIFORNIA'S REPRESENTATIVES INTO A GROWN-UP APPROACH TO THE ISSUE AS WELL."

THERE ARE A LOT OF FOLKS IN MY DISTRICT WHO WOULD ONLY ADD THE WORD "AMEN."

VERY SIMPLY STATED, WE IN VENTURA COUNTY HAVE LEARNED DURING NEARLY A CENTURY OF OFFSHORE DRILLING THAT IF CARE AND PRUDENCE ARE TAKEN, THERE IS NO CONFLICT BETWEEN THE ECOLOGY AND THE ECONOMY; THERE IS NO CONFLICT BETWEEN PRESERVATION AND PROGRESS; THERE IS NO CONFLICT BETWEEN THE NEED TO PROTECT THE BEAUTY OF OUR SHORES AND THE NEED TO PROVIDE FOR THE PROSPERITY OF OUR PEOPLE. THERE IS NO CONFLICT.

ASK ANY SPORTS FISHERMAN IN MY AREA WHERE THE SEAS TEAM WITH LIFE, AND HE WILL TELL YOU WITHOUT HESITATION THAT THE BEST FISHING IS BY THE RIGS. DOES THAT SOUND LIKE AN ENVIRONMENTAL NIGHTMARE?

ASK ANY LONG-TIME RESIDENT OF MY COUNTY WHAT HAS HAPPENED TO THE NATURAL OIL SEEPAGE THAT ONCE OOZED FREELY ONTO THE BEACHES AND HE WILL TELL YOU WITHOUT HESITATION THAT IN THE LAST TWO DECADES, THE SEEPAGE HAS ABATED, AND THE BEACHES WERE NEVER CLEANER THAN THEY ARE RIGHT NOW.

AND MOST IMPORTANTLY, ASK THE 16,000 PEOPLE WHO ARE DIRECTLY EMPLOYED IN OFFSHORE DRILLING AND ITS SUPPORT INDUSTRIES IN MY COUNTY WHAT THEY WOULD DO --- HOW THEY WOULD SUPPORT THEIR FAMILIES --- IF THIS INDUSTRY IS FORCED TO COLLAPSE?

ANY ADDITIONAL DELAYS ON OCS DEVELOPMENT THAT YOU IMPOSE WILL PROTECT NOTHING AND WILL HURT EVERYONE.

LET THAT BE REALIZED: IF YOU CLOSE PROMISING CALIFORNIA TRACTS TO OFFSHORE DEVELOPMENT, YOU ARE ADDING NO SIGNIFICANT PROTECTION TO THE COAST --- BECAUSE THE CALIFORNIA COAST IS ALREADY PROTECTED BY THE MOST STRINGENT SAFEGUARDS IN THE UNITED STATES. OCS DEVELOPMENT IN CALIFORNIA, IN ADDITION TO RUNNING THE FEDERAL REGULATORY GAUNTLET, MUST OBTAIN 18 SEPARATE STATE AND LOCAL ENVIRONMENTAL PERMITS. EVERY PROJECT RUNS A TEN YEAR OBSTACLE COURSE UNDER THE CLOSEST SCRUTINY OF THE CALIFORNIA COASTAL COMMISSION, THE STATE AIR RESOURCES BOARD, THE DIVISION OF OIL AND GAS, THE CALIFORNIA ENERGY COMMISSION, THE STATE LANDS COMMISSION, AND THE DEPARTMENT OF FISH AND GAME.

I COULD GO INTO ALL THE SAFETY IMPROVEMENTS THAT HAVE BEEN MADE IN THE INDUSTRY SINCE 1969, OR GIVE A PATRIOTIC APPEAL FOR ENERGY INDEPENDENCE, BUT YOU ALREADY KNOW THESE THINGS.

LET ME INSTEAD CLOSE BY TALKING ABOUT 16,000 PEOPLE IN MY COUNTY ALONE WHO YOU WILL BE DELIBERATELY PUTTING OUT OF WORK IF YOU EXTEND THE DRILLING MORATORIUM.

ALREADY U.S.A. PETROCHEM HAS CLOSED --- IT WAS ONE OF THE LARGEST EMPLOYERS IN MY COUNTY. VETCO OFFSHORE HAS GONE THROUGH ITS SECOND ROUND OF LAYOFFS THIS YEAR.

AND ALL FOR WHAT?

FOR A FEW THOUSAND RICH FOLKS WHO OVERLOOK THE COAST AND DON'T WANT A FEW OIL PLATFORMS ON THE HORIZON WHEN THEY STARE OUT THEIR LIVING ROOM WINDOWS. TO THEM, 16,000 JOBS IN MY AREA IS A SMALL PRICE TO PAY FOR A SLIGHTLY BETTER VIEW FROM THEIR BIG BAY WINDOWS.

TO ME, THIS KIND OF EXTREME SELF INTEREST IS OBSCENE.

FOR THOSE 16,000 PEOPLE IN MY COUNTY WHO ARE DIRECTLY EMPLOYED IN THIS INDUSTRY --- AND FOR THE 100,000 NEW JOBS IN SOUTHERN CALIFORNIA THAT COULD BE GENERATED IN THE NEXT TEN YEARS, A LITTLE MORE DRILLING IN MY BACKYARD IS A VERY SMALL PRICE TO PAY.

SACRAMENTO OFFICE
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SACRAMENTO, CA 95814
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Assembly
California Legislature

PAT NOLAN
ASSEMBLYMAN FORTY-FIRST DISTRICT

ASSEMBLY REPUBLICAN LEADER

August 19, 1985

Honorable Donald P. Hodel
Secretary of the Interior
Department of the Interior
C & 19th Streets, N.W.
Washington, D.C. 20240-0000

Dear Mr. Secretary:

As members of the California Legislature, we are writing to express our deep concern over the proposed compromise on California Outer Continental Shelf leasing announced on July 16, 1985. While some Californians argue, "Not in my backyard," the majority recognize that development of Outer Continental Shelf energy reserves is necessary to America's national security interests. Equally important, such development provides jobs for California.

Like all Californians we believe that offshore development must proceed in a safe and environmentally compatible fashion. However, a moratorium on offshore leasing is not necessary to insure environmental protection. Our Coastal Act coupled with your regulatory program under the Outer Continental Shelf Lands Act adequately protect against the potential environmental impacts of offshore development. Those regulatory programs allow significant consideration of America's energy security and California's economic growth in deciding how resources off the California's coast will be developed. We fear that both have been weakened in the July 16th proposal.

Under the proposed compromise only 150 of the nearly 6,500 tracts currently under moratoria could be considered for leasing. Of those 150, the petroleum industry has stated that less than 25 are likely to contain sufficient reserves to justify further exploration or production.

A promise that vital areas can be released in a national energy emergency is hollow. Energy crises do not give years of advance warning. In the 8 - 15 years required to identify new discoveries and bring them to market, few will appreciate that we begin the search when the emergency is upon us. Many bitter cold winters and long hours in gas lines will pass before such a promise could be realized.

Over the last several months thousands of petroleum industry workers have been laid off. California is not immune from these job losses. Consummation of the compromise would bring California's offshore oil exploration companies to a standstill resulting in further layoffs. It would also adversely affect a variety of California companies which service the industry.

The lockup of offshore acreage resulting from the compromise will deny California the economic benefits of an active exploration and production effort until the next century. It will delay job creation and economic growth.

The fifteen-year leasing ban will have a particularly devastating effect on the geophysical industry. Millions of dollars of geophysical data which have been collected on tracts subject to continued moratoria will be become unmarketable under the compromise. Under Federal law and the proposed compromise, this highly confidential data would be released to the public five years before new leasing will even be considered. All data collected thus far on tracts subject to moratoria will be rendered commercially worthless. The adverse impact created by the proposed compromise far outweighs its utility. The Outer Continental Shelf Lands Act mandates that you base leasing decisions on a tract by tract determination of the public interest. It also required formal consultation with the State of California as you make these decisions. It is far superior to base leasing decisions on the extensive considerations contained in the Outer Continental Shelf Lands Act than on a political compromise with certain members of the California congressional delegation.

The nation needs leadership to manage our resources so as to protect the interests of all Americans. California needs the economic growth and jobs that environmentally protective offshore development can bring. We urge that you not conclude the proposed compromise agreement, but instead adhere to the mandate of the Outer Continental Shelf Lands Act.

SINCERELY,

THE FOLLOWING MEMBERS OF THE
CALIFORNIA STATE ASSEMBLY REPUBLICAN CAUCUS

ASSEMBLYMAN PATRICK J. NOLAN
Assembly Minority Floor Leader

Don Rogers
ASSEMBLYMAN DON ROGERS

Doris Allen
ASSEMBLYWOMAN DORIS ALLEN

Charles W. Bader
ASSEMBLYMAN CHARLES W. BADER

Bill Baker
ASSEMBLYMAN WILLIAM BAKER

Bill Bradley
ASSEMBLYMAN BILL BRADLEY

Dennis Brown
ASSEMBLYMAN DENNIS L. BROWN

ASSEMBLYMAN GERALD N. FELANDO

ASSEMBLYMAN GIL FERGUSON

ASSEMBLYMAN BILL FILANTE

Robert C. Frazee
ASSEMBLYMAN ROBERT C. FRAZEE

Nolan Frizzelle
ASSEMBLYMAN NOLAN FRIZZELLE

Wayne
ASSEMBLYMAN WAYNE GRISHAM

Wally Herger
ASSEMBLYMAN WALLY HERGER

Frank Hill
ASSEMBLYMAN FRANK HILL

Ross Johnson
ASSEMBLYMAN ROSS JOHNSON

Bill Jones
ASSEMBLYMAN BILL JONES

David G. Kelley
ASSEMBLYMAN DAVID G. KELLEY

ASSEMBLYMAN ERNEST KONNYU

Marian W. La Follette
ASSEMBLYWOMAN MARIAN LA FOLLETTE

ASSEMBLYMAN BILL LANCASTER

Bill Leonard
ASSEMBLYMAN BILL LEONARD

ASSEMBLYMAN JOHN R. LEWIS

ASSEMBLYMAN TOM McCLINTOCK

ASSEMBLYWOMAN SUNNY MOJONNIER

Dick Mountjoy

ASSEMBLYMAN RICHARD MOUNTJOY

ASSEMBLYMAN ERIC SEASTRAND

Don Sebastiani

ASSEMBLYMAN DON SEBASTIANI

ASSEMBLYMAN STAN STATHAM

ASSEMBLYMAN LARRY STIRLING

Catsie Wright

ASSEMBLYMAN CATSIE WRIGHT

Phil Wyman

ASSEMBLYMAN PHILLIP D. WYMAN

[illegible]

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INSURANCE, CLAIMS AND CORPORATIONS
JUDICIARY
SELECT COMMITTEE ON SMALL
BUSINESS ENTERPRISES
JOINT COMMITTEE FOR THE
REVISION OF THE
PENAL CODE

Senate
California Legislature
JOHN T. DOOLITTLE
First District

August 27, 1985

Honorable Donald P. Hodel
Secretary of the Interior
Department of the Interior
C & 19th Streets, N.W.
Washington, D.C. 20240-0000

Dear Mr. Secretary:

As members of the California State Senate, we are writing to express our deep concern over your department's recent leasing compromise proposed for California's Outer Continental Shelf. While some Californians argue, "Not in my backyard," the majority recognize that development of Outer Continental Shelf energy reserves is necessary to America's national security interests. Equally important, such development provides jobs for California.

Like all Californians we believe that offshore development must proceed in a safe and environmentally compatible fashion. However, a moratorium on offshore leasing is not necessary to insure environmental protection. Our Coastal Act coupled with your regulatory program under the Outer Continental Shelf Lands Act adequately protect against the potential environmental impacts of offshore development. Those regulatory programs allow significant consideration of America's energy security and California's economic growth in deciding how resources off the California's coast will be developed. We fear that both have been weakened in the July 16th proposal.

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The lockup of offshore acreage resulting from the compromise will deny California the economic benefits of an active exploration and production effort until the next century. It will delay job creation and economic growth.

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The nation needs leadership to manage our resources so as to protect the interests of all Americans. California needs the economic growth and jobs that environmentally protective offshore development can bring. We urge that you not conclude the proposed compromise agreement, but instead adhere to the mandate of the Outer Continental Shelf Lands Act.

SINCERELY,

THE FOLLOWING MEMBERS OF THE
CALIFORNIA STATE SENATE

Senator John T. Doolittle

Rose Ann Vuich
Senator Rose Ann Vuich

Walter W. Stiern
Senator Walter Stiern

Jim Ellis
Senator Jim Ellis

Senator Ruben S. Ayala

Ed Royce
Senator Ed Royce

Ed Davis
Senator Ed Davis

Senator Newton R. Russell

Senator Joseph B. Montoya

Senator William Campbell

Ralph C Dills
Senator Ralph C. Dills

Senator Alan Robbins

H.L. Richardson
Senator H.L. Richardson

Jim Nielsen
Senator Jim Nielsen

VENTURA STAR FREE PRESS
SEPT. 12, 1985
SFP 9/12/85

Opinion

Hodel's wise decision

A NO-HOLDS-BARRED battle over the extraction of petroleum wealth lying off the coast of California was rejoined this week, judging from the latest pronouncements from the hallowed halls of Washington. At stake are millions of dollars, thousands of jobs, and the California coastline itself.

The war was first declared in the opening days of the Reagan administration when then-Interior Secretary James Watt announced his intention to consider for lease broad swathes of federal offshore lands, amounting to millions of acres. In reaction, certain California congressional members managed to wedge an amendment into the Interior Department's spending bill prohibiting it from leasing much of the area. Over the last four years that leasing moratorium has been renewed and expanded until it now includes about half of all federal ocean lands off the coast.

Interior Secretary Donald P. Hodel, in a effort to head off yet another renewal of the congressional moratorium, negotiated a preliminary agreement in July with key legislators. That agreement would have allowed development of 150 lease tracts while protecting the balance of the moratorium area, 6,310 tracts, through the year 2000.

Last month, however, Hodel held 11 public meetings in California coastal communities and came away convinced he and Congress had selected the wrong tracts. Oil industry experts claimed those areas contained very little of the state's potential offshore reserves — perhaps only 5 to 7 percent — and environmental concerns raised the threat of lawsuits to block development of much of the area in Southern California.

Hodel, and rightly and courageously so, rejected the proposed agreement and asked to negotiate a new pact. As constituted, it amounted to little more than an extension of the existing moratorium. That would have dealt a serious blow to California's struggling offshore oil industry, already crippled by the moratorium and the worldwide oil glut which has sent even OPEC into disarray.

Unfortunately, our congressional leaders, Sens. Alan Cranston and Pete Wilson among them, reacted like they were betrayed by an unfaithful spouse. Led by Rep. Leon Panetta, D-Carmel Valley, they promised to extend the moratorium due to expire Sept. 30. Panetta, a principal in drafting the proposed agreement, was quoted as saying, "We are essentially back at war on the issue."

It is a shameful display of congressional pique.

Hodel changed his mind after listening to hour upon hour of public testimony. It seems highly unlikely those legislators have bothered to even sample some of the comments received. Yet, they cry "Foul!" and rush to renew an unnecessary and onerous moratorium.

That puts at risk an industry which has long been a vital part of Ventura County's economy and is critical to the long term health of the nation. At the same time, should the compromise collapse and the moratorium expire without extension, Californians could lose the protections promised by Hodel on some of the most environmentally sensitive, beautiful and irreplaceable coastline in the world.

10 — NEWS Monday, September 9, 1985 DAILY NEWS

Daily News

ESTABLISHED 1911

BYRON C. CAMPBELL, President and Publisher
TIMOTHY M. KELLY, Editor

Ali Sar, Managing Editor
Thomas S. Gray, Editor, Editorial Pages

Editorials

Hodel and hard facts

Interior Secretary Donald Hodel last week made an unusual admission for a bureaucrat: He said his department had blown it. Specifically, he said the department had made some bad suggestions about where new oil exploration should be allowed off the California coast.

The department had designated 150 specific sites, and the California congressional delegation had informally agreed to support them. But after a series of hearings in California that ended last week, Hodel said a mistake was made — that different tracts, and more of them, would be a better way to go.

Although his candor is refreshing, it earned him only criticism from members of the state's congressional caucus. Most of these legislators have only grudgingly accepted the idea of anymore offshore drilling at all, and they entered into the original agreement reluctantly. Hodel's request for a broader program was certain to call down fury on his head.

The fury flowed freely — from politicians as diverse as Republican Sen. Pete Wilson on the right to Democratic Rep. Leon Panetta on the left. They said that if the original plan is scrapped, they'll oppose any new exploration, period.

Fortunately, Hodel is standing his ground. He refuses to join his congressional critics in the fantasy world they are occupying on the energy issue.

Indeed, the hard facts of the issue can't be wished away. The most basic of those is that America desperately needs to develop more domestic oil. Interior Department engineers say that the country will need 32 billion barrels of new supplies in the next decade just to keep domestic production at current levels.

The imperative is made all the greater by the unstable nature of the areas where the principal foreign suppliers are located.

The next hard fact is that, according to industry and government experts, about half the untapped oil sources on U.S. territory are beneath the sea. So to lock up the offshore region would be to lock America out of energy security.

The oil companies have told Hodel that the tracts his department designated aren't promising. Even critics like Panetta admit that the process the department used to identify those tracts was based on sketchy information and would not necessarily have identified the most promising ones.

The only strategy that logically follows is the one Hodel is urging — that different sites be targeted, and more of them as well, to provide the best opportunity for hitting pay dirt.

The logic of that position, of course, depends on one's buying the assumption that America needs more home-drilled oil. But that's the only assumption that squares with reality; responsible public officials can't devote time to quarrel over fundamentals like that.

The nation has a responsible leader in its Interior secretary. We hope his example will shame California's representatives into a grown-up approach to the issue as well.

OXNARD PRESS COURIER
SEPT 8, 1985

9/8/85

Opin

The Press-Courier

New Oil Lease Pact Critical

Offshore oil industry workers must be heartened by assurances from Washington that Secretary of Interior Donald Hodel will attempt to negotiate a new compromise ending a moratorium on drilling off the state's coastline.

It's imperative that Hodel do just that.

There is much more at stake than area oil-industry jobs. The offshore oil industry is an integral part of the state and national economies and impacts on the national defense.

And yet, environmentalists want Congress to continue the complete moratorium on offshore drilling enacted four year ago. That moratorium has blocked leasing of 6,460 offshore oil and gas tracts.

Hodel thought he'd worked out a satisfactory compromise to break the ban before its Oct. 1 renewal deadline. That compromise, pushed by five members of the California congressional delegation, would free just 150 leases — mostly off northern California — for development.

The congressmen claim the compromise is realistic. They gave Hodel no indication of any opposition to it or support for offshore drilling anywhere in coastal California. Hodel is finding out neither is true.

THE EFFECT of an unrealistic moratorium on offshore oil development is staggering.

Trade analysts estimate that 30,000 jobs are lost with each billion dollars of imported oil. The United States imported more than $50 billion in petroleum in 1984, which means it *exported 1½ million jobs*.

The moratorium has contributed significantly to this nation's immense trade deficit. And, perhaps worse, it perpetuates the country's energy vulnerability, a threat to the national defense. The ban also increases the potential of U.S. involvement in the defense of foreign oil suppliers.

Californians have only to remember the petroleum shortages of the 1970s which forced them to wait hours in line for gasoline, gave the OPEC nations a hold on a large segment of the U.S. economy, and caused prices of countless products with petroleum bases to rocket upwards.

It also should be remembered that virtually total oil moratoriums threaten the financial health of the growing local and state fishing and tourism industries. Both industries are energy-dependent and energy-intensive. Both sustained severe losses in the '70s shortages, and any future oil crisis would hurt them dramatically.

CERTAINLY, THERE is danger to the coastline from an oil spill. But the industry's safety record is admirable. In fact, there is more pollution from natural sources than the industry itself.

The 1969 Santa Barbara spill is the only one of four recorded spills in which any significant amount of oil reached the shore. That record runs through 1983 for an industry which has drilled 30,000 wells and produced more than 10 billion barrels of oil and 72 trillion cubic feet of natural gas.

In fact, natural seepage in the Santa Barbara Channel is estimated to exude more than 100 barrels of oil daily. Yet, during the period from 1971 to 1982, a natural seepage averaging only 15 barrels a day would have added more oil to the marine environment than spilled from all of the nation's offshore exploration and production.

It is not only the quantity of leases which would be freed in the compromise that is questionable but also the quality. There is an indication that a number of the leases tabbed for development may be worthless. And under the terms of the agreement previously reached by Hodel, no more leases would be freed until the year 2000. Unfortunatey, it would take another 10 years to develop those leases, halting production until 2010.

IT WOULD take a national energy emergency to lift the moratorium — perhaps too late for the country to respond effectively to protect its interests.

The oil industry's opposition to the compromise proved an eye-opener to Hodel during his recent county visit. As a result, he is calling for new meetings with California congressmen — this time including Rep. Robert J. Lagomarsino, who represents Ventura County. Lagomarinso also is calling for meetings to reach a new compromise.

Certainly not all concerns can be answered in any compromise. But a much more reasonable agreement can be reached to meet critical future needs of the state and the nation. The issue is too important to let a handful of congressmen railroad through an unrealistic compromise to preserve the votes of some constituents who don't want any oil rigs off their shores.

The **Chairman**. Thank you very much. I appreciate the testimony of each of you.

Mr. **Sauernman**. Mr. McClure, if I may make one brief point with regard to the jobs, because I don't want it felt that my office and my boss would support a program that would be costing California jobs or be hurting the economy of the counties such as Ventura.

I don't doubt, given the outpouring of sentiment on this issue, that there seems to be a problem with regard to jobs in the oil industry in the California area. I think one point that has to be kept in the front of your mind on this, however, is that over the past 4 years off California there have been four lease sales, and there have been OCS projects approved which will involve construction of $6 to $10 billion.

Now, in anybody's ball park that is a lot of building, and it seems to us that if the workers in Ventura and the companies in Ventura, for example, aren't getting a fair share of that, it can't be laid to the moratoria, and it can't be laid to agreements such as this.

There is something else going on, and I would suggest that one of the reasons may be that the oil companies, for example, build their platform jackets in Korea and Taiwan and don't build them in the United States. They build the modules that go into the jackets outside of California.

Those are their economic decisions which you may think are good or bad, but I think those are more likely the reasons for the problems in the California oil industry and not the moratoria. The fact of the matter is, the OCS offshore California is in a boom right now.

Mr. **McClintock**. Senator, I do want to respond. Betco Offshore is a major plant in my district. They have had two major layoffs just this year. They produce a lot of the offshore drilling equipment. The gentleman from the Attorney General's office is absolutely wrong.

I spent 2 years on the Assembly Natural Resources Committee watching in horror as we shut down one part of the coast after another. I can assure you that the policies that among others our Attorney General has decided to pursue have had a major devastating impact on my district and my area, and we will certainly be discussing that——

The **Chairman**. Gentlemen, thank you. Thank you both.

The committee will stand in recess until the hour of 2 p.m.

[Whereupon, at 1:05 p.m., the committee was recessed, to reconvene at 2 p.m. the same day.]

AFTERNOON SESSION

Senator **Murkowski** [presiding]. The Energy Committee hearing will come to order, and the hour of 2 o'clock has come.

I would request that the witnesses address the table. We have what is referred to as panel 2. Mr. Charles Siess, president of Marathon Manufacturing Co. in Houston, TX, on behalf of the National Ocean Industries Association. You may proceed to address the witness table.

Mr. E.C. Broun and Mr. Ned E. Simes, president and CEO of Diamond M Co. Mr. Broun is executive vice president of Hughes Tool; Carol Dinkins, former Deputy U.S. Attorney General and Assistant Attorney General for Land and Natural Resources, Houston, TX; Mr. Larry Bowles, manager, Governmental Affairs, Geophysical Services Inc.; Mr. Robert E. Bates, Jr., president of the American Association of Blacks in Energy; Mr. Jack Curry, president, California Travel Parks Association.

I assume everybody is here but Ms. Dinkins. Well, she will be right back.

I want to first of all apologize in advance for the series of votes that are going to be commencing at 2:05. There will be about five votes. In order to accommodate your schedules, it would be, I think, appropriate that we continue your testimony rather than recessing. Otherwise, we will be here a couple of days.

So the professional staff will conduct the hearing during my absence as the Senator responsible for chairing when I will be called away to vote. We will try to see how it works.

I welcome you on behalf of the chairman, Chairman McClure, to the committee. As you know, the matter of Outer Continental Shelf development and the question of moratoria has been the subject of this morning's session. It will be the subject of a good deal of discussion and deliberation as we attempt to achieve greater energy independence in this country and still respond to the concerns that are associated with OCS development.

I see I have stalled long enough to have Ms. Dinkins be present. So I would ask that you proceed in any manner that you wish. Who is first?

STATEMENT OF CHARLES P. SIESS, JR., PRESIDENT AND CHIEF EXECUTIVE OFFICER, MARATHON MANUFACTURING CO., ON BEHALF OF THE NATIONAL OCEAN INDUSTRIES ASSOCIATION

Mr. SIESS. Thank you, Mr. Chairman.

I am Charles Siess, President and Chief Executive Officer of Marathon Manufacturing Co. Marathon's principal business is the construction of mobile offshore drilling rigs. We employ about 3,800 men and women, about 2,000 in Vicksburg, MI, Longview, TX, and Brownsville, TX, and in Houston.

Our current employment at these facilities is approximately 4,000 less than during the 1981-82 offshore drilling boom. This drastic reduction in jobs is related to reduced offshore oil and gas exploration.

Today I also appear on behalf of the National Ocean Industries Association [NOIA]. That is a trade association with about 450-member companies, all of which are engaged in aspects of service and supply related to offshore resource development.

I presently serve also as chairman of NOIA's Pro-leasing Task Force. The NOIA Proleasing Program is a national program, organized on a State-by-State basis, which brings together member companies with other likeminded individuals who believe in the development of the offshore throughout the country, in both coastal and inland States.

Companies and groups such as chambers of commerce, civic clubs, and other advocates of the offshore leasing process work together. An example of this one effort has produced a letter to Secretary Hodel against his preliminary agreement, which is signed by over 200 companies and associations, including representatives of labor, recreation, travel, tourism, agriculture, and manufacturers.

I have a copy of this letter which I would like to attach to my testimony.

Senator MURKOWSKI. Without objection, it will be attached.

Mr. SIESS. As has been pointed out repeatedly today, offshore oil and gas resources need to be developed to provide domestic energy supplies, enhance national security, reduce the balance of trade deficit, reduce our reliance on foreign imports, and improve our general economic welfare.

The primary point that I would like to stress is that all of the reasons to develop offshore Federal OCS are national in scope. Since the OCS belongs to all of the people of the United States, it is only fitting that its benefits and decisions affecting it should be shared by all.

NOIA is especially aware of the jobs created by the offshore development companies since they comprise the membership of NOIA. It is not just the oil companies who are involved in the development of offshore. It is also the geophysical companies, the drilling contractors, the service boat operators, material and equipment suppliers, service companies, and all the manufacturers who supply the parts and materials for the offshore operations.

These jobs are not just in Texas and Louisiana. For example, an offshore drilling rig built by my company within the last year in Vicksburg, MI. was assembled with parts coming from 35 States. The jobs created by offshore development directly or indirectly affect each and every State.

In August NOIA undertook for the Governor of California an informal telephone survey of 37 offshore petroleum service and supply companies. A copy of this survey is also appended to this statement.

The companies surveyed are currently located in California or were at one time headquartered or had major operations in the State. Firms included in the survey ranged from small family owned businesses to large corporations. They were located throughout the State, but concentrated primarily in southern California.

The most revealing aspect of the survey was the loss of California employment the 37 firms experienced between 1980 and the present. As a group, the number of employees fell from 21,988 in 1980 to 9,886, a 55-percent reduction. The number of plant locations for the sample firms fell from 75 in 1980 to 65. Fourteen plants have closed in the last 5 years.

Many of the respondents replied that they had consolidated their operations in Texas, mostly in Houston, over the last few years and that they would continue this trend in the future if there was no turnaround in the California offshore leasing situation. Those that remain in California responded that most of their offshore business was outside the State, mostly in the Gulf of Mexico and foreign markets.

In response to the question, how would the Hodel preliminary agreement affect your business, many of the respondents said that they would be put out of business. This was mostly the case for the smaller companies. The larger companies who already have operations outside the State said this agreement, if finalized, would hasten their move out of the State to the Gulf of Mexico.

It is important that, of the 37 companies surveyed, 29 of them were founded in California. Seven of those already had moved their headquarters and most of their operations out of the State. According to the companies, the lack of offshore leasing and development off California compared to other parts of the nation have caused the size of their California operations to decline.

A viable job market is there, one that has been anticipated by many of the companies, and jobs will be created in the State if development is allowed to occur. I believe that the industry has proved that the offshore can be developed in an environmentally safe manner. This record stands for itself and study after study have proven it.

In addition to the concern about spills, there are other alleged environmental problems, including air pollution, drilling muds, interference with commercial and sports fishing and animal migration. Again we must look to the facts.

All of these concerns have been resolved in other areas through general regulations and lease stipulations. It is time for all concerned parties to examine the facts instead of misinterpreting them and spreading misinformation which often plays to people's emotions.

I cannot force my opinion of a vista of a rig on the horizon to others, but I must consider the advantages gained by the entire Nation of that rig on the bottom versus their individual opinion. The deposits of oil and gas are set and have been there for millions of years.

It is unfortunate they are offshore as it is costlier to expore and develop. It is also unfortunate that many of the offshore hydrocarbons are near shore. If our Nation is determined to develop its resources—and I believe it is—then someone's scenic view will have to be obstructed for a period of time.

Critics of the offshore development often state that the present Leasing Program puts nearly the entire OCS up for sale, which implies that the entire coastline will be dotted with offshore rigs and platforms. This is far from the truth and is another example of the misinformation moratoria proponents spread.

The present leasing system, called areawide leasing, begins by offering large areas for leasing consideration, and only after years of consultation and studies by all the parties by the actual lease sale date, and only after the leases have actually been taken is there any drilling. A small amount usually is offered for lease and an even smaller amount is actually leased.

During this lengthy process, in which all the parties are consulted and allowed to comment, including industry, State, local governments, fishermen, citizens, and any other interested groups, and again in the plans of exploration and development, all environmental concerns are taken into account so that the proper balance between environmental concerns and resource development can be reached.

To head off the possibility of another year of moratoria, Secretary Hodel sought to negotiate with a few members of the California delegation. On July 16, 1985, the two parties announced the details of a preliminary agreement which would have opened 150 tracts for leasing which are currently under moratoria and that would keep the remaining 6,310 tracts under moratoria to the year 2000.

These 150 tracts will only be considered for leasing since they will be subject to review and lengthy NEPA and OCSLAA leasing process and the subject of possible litigation and delay. Without going into details or the shortfalls of the agreement, the outcome does shed some light on key points.

According to the Secretary, this was the best agreement that a group of Congressman would have accepted. Thus, I believe it is alarming and it should be exposed to the nation. A few Congressmen are determined to deny the nation for more than 15 years the valuable resources off their coastline.

Second, it shows Secretary Hodel what can happen in the leasing process prescribed by Congress if it is not followed. In reaching his preliminary agreement, the Secretary did not consult with the Governor, other Members of Congress, State and local officials, the citizens, industry, or other interested groups.

Senator MURKOWSKI. I am going to have to interrupt you. First of all, I am going to have to excuse myself to vote. I would ask that you proceed.

We are limiting the witnesses to about five minutes and you are at seven, as a general reminder. You can wrap it up.

Mr. SIESS. Thank you, sir. I will be through in about a minute.

Second, it showed Secretary Hodel what can happen if the leasing process prescribed by Congress is not followed. In reaching his preliminary agreement, the Secretary did not consult with the Governor, other Members of Congress, State and local witnesses in the industry, or other interested groups.

By entering into an 11th hour decision without the proper analysis and consultation, the outcome of the deal seemed to be predetermined. Congress must have been wise in 1979 when they wrote the OCSLAA, which calls for a lengthy leasing process and proper study and evaluation. I would hope that the events of the last 2 months have demonstrated to Secretary Hodel that he cannot negotiate a lasting settlement on OCS leasing with only a few representatives of one State's congressional delegation.

The existing leasing process calls for consultation which would include members of Congress, in addition to other affected parties. However, it was never intended that the Secretary would enter into an agreement without all parties and proper study. The OCSLAA was never intended as a local veto power over the leasing process of Federal lands off their coast.

The offshore industry supports the consultation process, along with NEPA process and other laws governing offshore leasing. I commend the Senate for never proposing a legislative moratoria through their appropriation process. I also commend the chairman of the committee for calling this important hearing today.

You can do your part by continuing your record of no moratoria language in the appropriations bills and by defeating any other proposal which would limit an orderly development of the Outer Continental Shelf. Perhaps without a moratoria we can get on with the process of leasing programs and develop the essential energy resources of this Nation.

Thank you, sir.

[The prepared statement of Mr. Siess follows:]

STATEMENT

OF

CHARLES P. SIESS, JR.

PRESIDENT AND CEO

MARATHON MANUFACTURING COMPANY

HOUSTON, TEXAS

On Behalf of the

NATIONAL OCEAN INDUSTRIES ASSOCIATION

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

September 17, 1985

Mr. Chairman and members of the Committee. I am Charles P. Siess, Jr., President and Chief Executive Officer of Marathon Manufacturing Company.

Marathon's primary business is the design and construction of mobile offshore drilling rigs. We employ approximately 2,000 men and women, mostly in Vicksburg, Mississippi, and at Longview, Brownsville, and Houston, Texas. Our current employment at these facilities is approximately 4,000 less than during 1981-1982 when offshore drilling was at its peak. This drastic reduction in jobs is directly related to reduced offshore oil and gas exploration.

Today, I appear on behalf of the National Ocean Industries Association (NOIA). NOIA is a trade association with approximately 450 member companies engaged in all aspects of the service and supply industries related to offshore resource development. I presently serve as Chairman of the NOIA's Pro-Leasing Task Force.

The NOIA Pro-Leasing Program is a national program, organized on a state-by-state basis, which brings together NOIA member companies with other like-minded individuals who believe in the development of the offshore. Throughout the country, in both coastal and inland states, companies and groups, such as state Chambers of Commerce, and civic clubs advocate the leasing of the outer continental shelf. An example of one recent effort this program has produced is a letter to Secretary Hodel against his preliminary agreement which was signed by over 200 companies and associations including representatives of labor, recreation, agriculture, and manufacturers. I have attached a copy of this letter to my testimony.

Offshore oil and gas resources need to be developed to provide domestic energy supplies, enhance national security, reduce the balance of trade deficit, reduce our reliance on foreign imports, and improve our general economic welfare. Other panelists today will discuss the energy supply situation and the potential resources of the OCS. The primary point that I would like to stress is that all of the reasons to develop the federal OCS are national in scope. The resources found offshore will enhance the nation's security, the nation's economy, and the nation's energy situation. Since the OCS belongs to all of the people of the United States, it is only fitting that its benefits and decisions affecting it should be shared by all.

NOIA is especially aware of the jobs created by the offshore development companies, since they comprise the membership of NOIA. It is not just the oil companies who are involved in the development of the offshore, but it is also the geophysical companies, the drilling contractors, the service boat operators, the equipment suppliers, the service companies, and all the manufacturers who supply all the parts to the offshore operations. These jobs are not just in Texas or Louisiana. For example, an offshore drilling rig built by my company last year in Vicksburg, Mississippi was assembled with parts coming from 35 states. The jobs created by offshore development directly or indirectly affect each and every state.

Jobs in California are a particular concern to NOIA. In August NOIA undertook for the Governor of California an informal telephone survey of thirty-seven offshore petroleum service and supply companies. (A copy of the survey is appended to this statement.) The companies surveyed are currently located in California or were at one time headquartered or had major operations in the state. Firms included in the survey range from small family-owned businesses to large corporations. They are located throughout the state, but concentrated primarily in Southern California.

The most revealing aspect of the survey was the loss of California employment the thirty-seven firms experienced between 1980 and the present. As a group, the number of employees fell from 21,988 in 1980 to 9,886 — a 55 percent reduction. The average size of the sampled company fell from 628 employees in 1980 to 267 today. The number of plant locations for the sampled firms fell from 79 in 1980 to 65. Among the 37 respondents, fourteen plants have closed in the last five years.

Many of the respondents replied that they had moved their headquarters and operations to Texas, mostly Houston, over the last few years and would continue this trend in the future if there was no turn-around in the California offshore leasing situation. Those that remain in California responded that most of their offshore business was outside of the state, mostly in the Gulf of Mexico and in foreign markets.

In response to the question, "How will the Hodel preliminary agreement affect your business?" many of the respondents answered that it would put them out of business. This was mostly the case for the smaller companies. The larger companies, who already have operations outside of the state, said the agreement, if finalized, would hasten their move out of the state to the Gulf of Mexico.

Of the thirty-seven companies surveyed, twenty-nine of them were founded in California. Seven of those have already moved their headquarters and most of their operations out of the state. All of those moves have been to Texas.

According to the companies, the lack of offshore leasing and development off California, compared to other parts of the country and other nations, have caused the size of their California operations to decline. If a viable market was there (and one was anticipated by many of the companies) more jobs would have been created in the state. Instead the opposite has occurred.

INDUSTRY'S ENVIRONMENTAL RECORD

I believe industry has proven that the offshore can be developed in an environmentally safe manner. The record stands for itself as does study after study. In addition to the danger of spills, there are other environmental concerns, including air pollution, drilling muds, interference with commercial and sport fishing and animal migration. Again, we must look at the facts. None of these concerns can not be solved through general regulations and lease stipulations. It is time for all concerned parties to examine the facts, instead of misinterpreting them and spreading misinformation which often plays to people's emotions.

Proponents of the moratoria cry the fear of the unfound environmental dangers of offshore development. Though it seems the real reason they support the moratoria is that they just do not want the offshore rigs or platforms off their coasts. I can not force my opinion of a vista with a rig on the horizon to others, but they must consider the advantages gained by the entire nation of that rig on the horizon versus their individual opinion. The deposits for oil and gas are set, and have been for millions of years. It is unfortunuate that they are offshore (it is costlier than onshore to explore and develop) and it is unfortunate that many of the offshore hydrocarbons are near shore. If our nation is determined to develop its resources, and I believe it is, then someone's scenic view will have to be obstructed for a period of time.

AREA WIDE LEASING

Critics of offshore development often state that the present leasing program puts nearly the entire OCS up for sale which implies that the entire coastline will be dotted with offshore rigs and platforms. This is very far from the truth and is another example of the misinformation moratoria proponents spread. The present leasing system, called area-wide leasing, begins by offering a large area for leasing consideration, but after years of consultations and studies by all involved parties, by the actual lease-sale date, only a small amount of that area is actually offered for lease and an even smaller amount is actually leased.

During the lengthy leasing process, in which all involved parties are consulted and allowed to comment (industry, state and local governments, fishermen, citizens, and any other interested group) and again in plans of exploration and development all environmental concerns are taken into account so that a proper balance between environmental concerns and resource development can be reached.

RECENT EVENTS

To head off the possibility of another year of leasing moratoria, Secretary Hodel sought to negotiate with a few members of the California Congressional delegation, who have been successful of gaining the moratoria, a long term settlement of the California leasing issue. On July 16, 1985, the two parties announced the details of of a preliminary agreement which would have opened up 150 tracts for leasing which are currently under moratoria and keep the remaining 6,310 tracts under moratoria to the year 2000. These 150 tracts would only be considered to be leased since they still would have been subject to review under the lengthy leasing process and subject to extended litigation and delay. The Secretary soon realized that his negotiated settlement was not going to come to be. Without going into the details of the shortfalls of the agreement, its outcome does shed some light on some points. According to the Secretary, this was the best agreement the group of Congressmen would have accepted. This, I believe, is alarming and should be exposed to the nation. A few Congressmen are determined to deny the nation for more than 15 years the valuable resources off their coastline. Secondly, it showed Secretary Hodel what can happen if the leasing process, prescribed by Congress, is not followed. In reaching his preliminary agreement, the Secretary did not consult with the Governor, other members of Congress, state and local officials, the citizens, industry, or other interest groups. By entering into an "eleventh hour decision" without the proper analysis and consultation, the outcome of the deal seemed to be predetermined. Congress must have been smart in 1978 when they wrote the OCSLAA, which calls for a lengthy leasing process and proper study and evaluation.

SUGGESTIONS FOR THE FUTURE

I would hope the events of the last two months have demonstrated to Secretary Hodel that he can not negotiate a lasting settlement on OCS leasing with only a few representatives of one state's Congressional delegation. The existing leasing process calls for consultation, which would include members of Congress in addition to other affected parties. However, it was never intended that he would enter into an agreement without all parties and proper study. The OCSLAA never intended such local power over the federal lands off their coast. NOIA supports a consultation process allowing the OCSLAA, along with the NEPA process and other laws governing offshore leasing, to work.

Members of this Committee can do their part in allowing the laws and leasing process to work. I commend the Senate for never proposing a legislative moratoria thru the appropriations process. I also commend the Chairman of this Committee for calling this important hearing today so that this issue can be brought to the open. You can do your part by continuing your record of no moratoria language in appropriation bills, and by defeating any other proposals which would limit the orderly development of the OCS. Without the moratoria perhaps then we can put the offshore leasing program back on course and explore and develop the essential energy resources for our nation.

August 12, 1985

The Honorable Donald P. Hodel
Secretary of the Interior
Department of the Interior
Washington, D. C. 20240

Dear Mr. Secretary:

We are strongly opposed to the preliminary agreement which you reached with some members of the California congressional delegation concerning oil and natural gas leasing of the Outer Continental Shelf off California. We believe the agreement is both ill-conceived and unnecessary and that, if implemented, it will be extremely harmful to the nation's energy and economic future. Because we have joined you in your frequently stated opposition to offshore leasing moratoria, we are deeply disappointed that you would advocate what amounts to a 15-year moratorium on 98 percent of the federal OCS acreage offshore California now covered by the Fiscal Year 1985 moratorium.

We represent more than 200 companies and associations located in many different geographic areas of the United States. We include suppliers of materials and services for the development of offshore oil and gas resources and users who depend on a secure supply of energy.

We believe the agreement runs counter to efforts to deal with such critical national concerns as future energy supply, national security, domestic employment, the federal budget deficit and the balance of trade deficit. By blocking orderly leasing for oil and natural gas offshore California, the agreement deprives California and the nation of vitally needed benefits:

o It is estimated that for every worker on an offshore platform, four jobs are created onshore in a support capacity. Blocking offshore development costs jobs not just in coastal areas, but across the entire country. Accelerated leasing on the Outer Continental Shelf over the next 10 years could result in nearly a million new jobs, according to a draft final report on a study made for the American Petroleum Institute by Battelle, Pacific Northwest Laboratories, and Data Resources, Inc.

o The OCS program is a major source of federal revenue. If schedules are met, $7-$10 billion in federal funds per year will be generated from lease sale bonus bids and production royalties. Delays in offshore development block this revenue yield.

- The nation's net payments for imported oil during 1984 amounted to almost $53 billion. That was nearly half as large as the total U.S. balance of payments deficit for all goods. Delays in offshore development worsen the trade deficit.

At a time of continued tensions in the Middle East, it is not in the nation's interest to make it more difficult to find and produce oil and gas here at home. Yet, that precisely will be the result of implementing your agreement with the California members of Congress. The agreement -- and the offshore leasing moratoria that have been in effect over the past several years -- conflict with the vital national goal of increased energy self-sufficiency and reduced reliance on foreign oil sources.

Under the agreement, potential offshore resources cannot be evaluated and, if they exist, will make no contribution to meeting the nation's energy needs until well after the year 2000 because of the long lead times needed for exploration and development. It often takes the industry from eight to 15 years to bring an offshore frontier area into production after oil is discovered. An energy emergency resulting from a disruption in foreign supplies will be over and its disastrous effects fully felt by the U.S. economy well before production from these areas could begin.

The agreement ignores the fact that U.S. oil reserves are declining and that, to maintain present levels of reserves and production through the year 2000, the oil industry must find more than 180 percent of today's proved reserves.

The agreement will also have a severely adverse effect on the equally important leasing of the OCS for natural gas development. About one-fourth of domestic gas supplies come from offshore wells. In addition, 60 percent of the present petroleum reserves in the OCS and about 70 percent of the hydrocarbon production in the CCS are natural gas.

Decreased oil and gas development has had a significant impact on suppliers of equipment and materials for offshore operations, who are located all across the United States. At a time when our nation has made much progress in recovering from a severe economic slowdown, withdrawing so much federal OCS acreage offshore California until the year 2000 can jeopardize the offshore industry's return to prosperity.

As long as our nation remains dependent on foreign oil imports, we do not have the luxury of fencing off large amounts of offshore petroleum resources without a full understanding of the consequences. Oil imports began to rise last year after falling for several years. Indications are that they will continue to rise, possibly until they constitute one-half or more of U.S. consumption -- unless the nation looks ahead and makes sensible decisions to foster domestic energy production. The national interest requires that we proceed with accelerated but orderly development of our offshore oil and natural gas.

Our opposition to the agreement is also based on the fact that it totally ignores the carefully drawn planning procedures provided by the Outer Continental Shelf Lands Act Amendments of 1978 (OCSLAA) and the Interior Department's own five-year lease sale planning process. These procedures were designed by the Congress and ratified by the courts to be a framework within which disputes over offshore leasing could be resolved through balanced and equitable decisions.

The agreement also ignores the OCSLAA mandate that the burdens and benefits of OCS development be equitably shared among the various coastal states. Under the agreement, only 150 of the 6,460 blocks now under moratorium may be offered for lease between now and the year 2000. This continues to place the burden of supplying most offshore oil and gas on the states bordering the Gulf of Mexico.

We believe that you and Secretary Clark made considerable progress over the past year in reducing the conflicts and controversies of recent years and have been most responsive to the concerns of the coastal states. However, we believe your agreement with certain California members of Congress goes much too far in the direction of allowing a faction within one state to determine energy policy for the entire nation.

Continued obstacles to offshore oil and gas leasing are neither necessary nor justifiable. Economic benefits at home and continued tensions in the Middle East underscore the need for OCS development. We urge you to set aside the preliminary agreement on offshore California leasing and permit orderly offshore development to proceed free of moratoria or other obstacles. We believe the national interest dictates this course.

Signed by:

Ackerman & Associates, Inc.
Air Products and Chemicals, Inc.
Alaska Support Industry Alliance
Alaska United Drilling, Inc.
American Association of Blacks in Energy
American Gas Association
American Homeowners Foundation
American Institute of Merchant Shipping
American Land Alliance
American Mining Congress
American Petroleum Institute
American Waterways Operators
Amhoist

Amoco Production Company
ARMCO Inc.
Association of Commerce and Industry of New Mexico
Atlantic Richfield Company
Avondale Shipyards Inc.
Baker International Corporation
Bell Helicopter, Textron
Bethelehem Steel Corporation
Bollinger Machine Shop & Shipyard, Inc.
Booker Drilling Company
Boyce Machinery Corp.
Brown & Root, Inc.
California Manufacturers Association
Camco, Incorporated
Cameron Iron Works, Inc.
Cameron Offshore Engineering, Inc.
Caterpillar Tractor Company
Champlin Petroleum Company
Chemical Manufacturers Association
Chevron U.S.A., Inc.
Chamber of Commerce of The United States
John E. Chance & Associates, Inc.
Chiles Drilling Company
CNG Producing Company
Combustion Engineering Inc.
Crowley Maritime Corporation
Data Drill, Division of Smith International
Deepsea Ventures, Inc.
Diamond M Company
Diamond Shamrock Corporation
Dillingham Maritime
Dive-Med International
Dixilyn-Field Drilling Company
Domestic Petroleum Council
Double R Equipment
Dowell Schlumberger
Dresser Industries, Inc.
Drilco
Dyna-Drill, Division of Smith International
Edison Chouest Offshore
The Elan Group
Exxon Company U.S.A.
Fluor Corporation
FMC Corporation
Furuno U.S.A., Inc.
Gaffney, Cline & Associates, Inc.
Gearhart Industries, Inc.
General Federation of Women's Clubs
Geophysical Service Inc.
Geosource Marine
Geoquest/Butler Companies
Global Marine Drilling Company
Global Marine Inc.
Great Lakes International

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Griffin-Alexander Drilling Company
Gulf Marine Fabricators, Inc.
Halliburton Company
Harvey-Lynch, Inc.
Hose McCann Telephone Company
Highway Users Federation
Hughes Tool Company
Hughes Production Tools Division
Illinois Manufacturers Association
IMODCO, Inc.
Independent Petroleum Association of America
Indiana Committee for Jobs and Energy
Indiana Manufacturers Association
Intermarine Incorporated
International Association of Drilling Contractors
International Association of Geophysical Contractors
International Underwater Contractors, Inc.
Interstate Natural Gas Association of America
J.J. Henry Co., Inc.
Richard L. Johnson Co. Inc.
Kaiser Steel Corporation
Peter Kiewit Sons Inc.
Kilgore Marine Inc.
Koomey Inc.
LIFE/JOBS Labor & Industry for Energy and Jobs (Pennsylvania)
Lake Charles Diesel, Inc.
Lawrence-Allison and Associates, Inc.
Lone Star Steel Company
Louisiana Association of Business and Industry
LTV Energy Products Company
Marathon LeTourneau
Marathon Manufacturing Company
Marathon Oil Company
Marinette Marine Corporation
Marlin Drilling
Martel Laboratories, Inc.
Martin Decker Division, Cooper Industries, Inc.
McDermott International Inc.
McEvoy
Mesa Petroleum
Michigan Manufacturers Association
Mid-Continent Supply Company
Milchem Inc.
Minnesota Mining and Manufacturing Company
Mississippi Manufacturers Association
Morgan City Supply of Louisiana, Inc.
Mobil Oil Corporation
Morrison Knudsen Company
Murphy Oil Corporation
National Agricultural Chemicals Association
National Association of Dredging Contractors
National Association of Manufacturers
National Association of Wheatgrowers
National Boating Federation

National Coal Association
National Forest Products Association
National Grange
National Marine Manufacturers Association
National Ocean Industries Association
National Paint & Coatings Association
National Peanut Council
National Society of Professional Engineers
National Supply Co.
National Tooling and Machining Association
Natural Gas Supply Association
NCS International, Inc.
New England Council
Newport News Offshore Systems Co.
Nicklos Oil and Gas Company
NL Industries
Norjac Enterprises Inc.
Northern California Marine Association
Ocean Drilling & Exploration Company (ODECO)
Oceaneering International, Inc.
Oceanic Butler, Inc.
Ocean Mining Associates
Offshore Logistics, Inc.
Offshore Navigation, Inc.
Oil and Gas Marine Service Inc.
Omnithruster, Inc.
The Paget-Clarke Company
Palmer International, Inc.
Pennsylvania Building and Construction Trades Council
Pennwell Publishing Company
Pennzoil Company
Penrod Drilling Company
Petroleum Finance Company
Petroleum Information Corporation
Petroleum Equipment Suppliers Association
Petrolane, Inc.
Phillips Petroleum Company
Pogo Producing Company
Porta-Kamp Manufacturing Company, Inc.
Racal Decca Survey, Inc.
Raymond International, Inc.
Reading & Bates Drilling Corporation
Recreation Vehicle Industry Association
Resource Development Council for Alaska, Inc.
Richill Marine, Inc
Rowan Companies
Salen Offshore Company
Schlumberger Offshore Services
Schlumberger Well Service
Seal Fleet, Inc.
Seaward International, Inc.
Shipbuilders Council of America
Simmons & Company International
Smith International, Inc.

Smith Tool
The Society of the Plastics Industry, Inc.
Sonic Petroleum Company
Solar Turbines, Inc.
Sonat Marine Inc.
Sonat Offshore Drilling, Inc.
Spearin, Preston & Burrows, Inc.
The Standard Oil Company of Ohio
Sun Exploration and Production Company
Survey Boats, Inc.
Talon Technology Corp.
Teledyne Exploration Company
Teledyne Merla
Tenneco Oil Exploration and Production Company
Tennessee Manufacturers and Taxpayers Association
Texas Gas Exploration Co.
Texas Eastern Transmission
TGS Geophysical Company
Tidewater, Inc.
The Transportation Institute
TRW Inc.
Union Carbide Corporation
United States Steel Corporation
Union Texas Petroleum Corporation
Unocal Corporation
Utility Workers Union of America
Ventura County Economic Development Association
Vetco Offshore, Inc.
Virginia Manufacturers Association
Washington Natural Gas
Waterway Communications System, Inc.
Western Gear Corporation
Western Geophysical Company
Western Oceanic, Inc.
Western Timber Association
The Williams Companies
Willis
WIMPOl, Inc.
Wintershall Oil and Gas Corporation
Youth for Energy Independence
Zapata Corporation

Updated 9/5/85

NATIONAL OCEAN INDUSTRIES ASSOCIATION

1050 Seventeenth Street, N.W., Suite 700 Washington, D.C. 20036

(202) 785-5116

August 17, 1985

Jan Sharpless
Acting Secretary
of Environmental Affairs
1102 Q Street
Sacramento, CA 95814

Dear Secretary:

As a follow-up to our meeting with you two weeks ago on the federal offshore leasing program, enclosed are the results of an informal economic survey of the offshore service and supply companies in California.

This survey reveals, without a doubt, that these California businesses have greatly suffered in the last few years and will continue to face severe economic hardships. The most revealing aspect to the survey is that the thirty-seven firms polled, in sum, have reduced their employment by 55% from 1980. Together they have laid-off or moved out of the state 12,102 people.

The one year moratoria placed on most of the California offshore coastline for the past few years has already hurt the industry with the direct effect being the loss of jobs. I am afraid if the preliminary agreement between the Secretary of the Interior and a few California Congressmen is finalized, all hope for a viable service and supply industry in California will be lost.

In the past, with the one year moratoria there was hope that it could be lifted in the following year. Given the lengthy leasing process and the long lead time of five to ten years from the discovery of a field until oil is produced, this agreement in effect would place at least a twenty-five year moratoria on most of the California offshore coastline.

I appreciate the opportunity to present this survey to you and am available to answer any additional questions you may have.

Sincerely,

Jack W. Knowlton/cs

Jack W. Knowlton
California Pro-leasing Chairman
Senior Vice President
Smith International

JWK/m

Enclosure

ECONOMIC SURVEY OF CALIFORNIA OFFSHORE SERVICE AND SUPPLY COMPANIES

An informal telephone survey of thirty-seven offshore petroleum service and supply companies was conducted by the National Ocean Industries Association on August 14-16, 1985. The companies surveyed are currently located in California or at one time headquartered or had major operations in the State. Firms included in the survey range from small family-owned businesses to large corporations. They are located throughout the state, but concentrated primarily in Southern California.

The most revealing aspect of the survey is the loss of California employment the thirty-seven firms experienced between 1980 and the present. As a group, the number of employees fell from 21,988 in 1980 to 9,886 (or 55%). The average size of the sampled company fell from 628 employees in 1980 to 267 today. The number of plant locations for the sampled firms fell from 79 in 1980 to 65. Among the 37 respondents, fourteen plants have closed in the last five years.

Many of the respondents replied that they had moved their headquarters and operations to Texas, mostly Houston, over the last few years and would continue this trend in the future if there was no turn-around in the California offshore leasing situation. Those that remain in California responded that the majority of their offshore business was outside of the state, mostly in the Gulf of Mexico and in foreign markets.

In response to the question, "How will the Hodel preliminary agreement affect your business?" many of the respondents answered that it would put them out of business. This was mostly the case for the smaller companies. The larger companies, who already have operations outside of the state, said the agreement, if finalized, would hasten their move out of the state to the Gulf of Mexico.

Of the thirty-seven companies, twenty-nine of them were founded in California. Seven of those have already moved their headquarters and most of their operations out of the state. All of those moves have been to Texas.

According to the companies, the lack of offshore leasing and development off California, compared to other parts of the country and other nations, have caused the size of their California operations to decline. If a viable market was here (and one was anticipated by many of the companies) more jobs would have been created in the state. Instead the opposite has occurred.

Attached are some personal comments expressed by the respondents and further supporting documents. These personal comments reveal the crisis of the current situation and highlight a bleak future if the agreement is to be finalized.

August 17, 1985

EXAMPLES OF EMPLOYMENT LOSS AND PLANT CLOSURES

(NOTE: All employment figures are for California)

1. Equipment supplier in Torrance, founded in 1909 in Torrance

Employment	1981	550
	1985	65

By September 30, 1985 will only have 8 employees left.

2. Equipment supplier in Ventura, founded in 1930 in Ventura

Employment	1983	1280
	1985	600

Moved headquarters to Houston in July, 1985 and moved or laid off 400 employees.

3. Drilling contractor from Houston, Texas

Operated two jack-up rigs in California for years. Now has no California presence. One rig sat idle in Long Beach for nearly one year before moving it to the Gulf of Mexico. Finally, gave up on California. "We planned to open division in California with 60 employees, but that never materialized."

4. Equipment supplier founded in California in 1927; moved to Texas from California in 1984.

Employment	1980	700
	1985	17

5. Equipment Supplier founded in Long Beach in 1913

Employment	1980	1200
	1985	500

6. Equipment Supplier headquartered in Texas

Employment	1980	1400
	1985	30

Closed a plant in Los Angeles County in 1984 which caused a loss of 1,000 jobs.

7. Drilling Contractor and offshore engineering firm in Orange County founded in 1913 in Orange County

Employment	1980	6000
	1985	3200

8. Equipment supplier in Los Angeles founded in 1933 in Los Angeles

Employment	1980	600
	1985	20

"Used to think enough activity in California to justify two manufacturing plants. Have decided not much reason here except for repair."

9. Equipment supplier in Orange County founded in 1908 in California

Employment	1980	1210
	1985	200

Had anticipated growth for California, even purchased 30 acre site for new plant."

10. Equipment supplier in Orange County founded in 1937 in Los Angeles

Employment	1980	4000
	1985	2000

"Company earns about $1 million per month less from California's offshore drilling since 1982.

EFFECTS ON BUSINESS IF PRELIMINARY AGREEMENT IS FINALIZED

Equipment Supplier in Los Angeles County

"Moved headquarters to Houston this week and [illegible]0 employees were laid-off. One-half of (company's) revenue is earned from the offshore. Reduction would require personnel reduction and facility closure."

Supply Boat Operator in Ventura

"Within six months we would be out of business. Our boats are specifically designed for the business. When our current contract expires, we will be out of business if agreement is implemented."

Equipment Supplier in Ventura

"We would operate out of Houston. No business in California."

Equipment Supplier in Los Angeles

"We would not do any business in California and would focus attention overseas where restrictions are not as severe."

Offshore Diving Company in Santa Barbara

"It would cause us to shut down our California office. We would operate exclusively off the Gulf."

Offshore Service Company in Orange County

"It will extend a disastrous situation."

Equipment Supplier in Orange County

"California offshore is the heart of our business; without it our company would have difficulties."

Drilling Contractor in Houston, Texas

"It would continue to limit job opportunities in United States and would cause further exportation of economic opportunities to foreign lands."

Equipment Supplier (headquartered in Texas with four plants in California)

"We would reduce locations to two and reduce number of employees by one-half."

Equipment Supplier in Orange County

"Agreement might close down our few remaining operations."

Equipment Supplier in Orange County

"We used to have a sufficient business to maintain plants and field service in California. The agreement would continue depreciation of business in California."

Offshore Service Company in Sacramento

"Would limit California activity in the future. Would concentrate on other areas. De-emphasize California."

Equipment Supplier in Orange County

"Continue folding back in California. Increase operations in Houston, Louisiana, and Scotland. Our California plant employees are not very enthusiastic."

Equipment Supplier in Orange County

"May cause the move of our manufacturing and engineering operations to another area."

Equipment Supplier in Orange County

"Continuing the moratoria means fewer wells will be drilled. Fewer wells need fewer bits and fewer bits need fewer people."

LOCATIONS OF SAMPLED COMPANIES

Los Angeles County	11
Orange County	10
Ventura County	5
San Mateo County	2
Santa Barbara County	1
Sacramento County	1
San Diego County	1
Outside California	6
	37

TYPE OF BUSINESS OF SAMPLED COMPANIES

Equipment Supplier	23
Offshore Services	7
Drilling Contractor	2
Drilling Contractor & Offshore Engineering	2
Offshore Diving Company	1
Geophysical Contractor	1
Supply Boat Operator	1
	37

Mr. **Arnold**. Thank you, Mr. Siess.

With the permission of the committee, we are going to continue to take testimony. Senator Murkowski should be back very shortly. So Mr. Broun, if you would like to continue.

I am going to be using the lights to give you an idea of time. The green light will be on, the yellow light will come on with 1 minute to remain and we ask you to summarize within that minute. When the red light comes on, we need to go on to the next witness.

STATEMENT OF E.C. BROUN, JR., EXECUTIVE VICE PRESIDENT, HUGHES TOOL CO., ON BEHALF OF THE PETROLEUM EQUIPMENT SUPPLIERS ASSOCIATION

Mr. **Broun**. Thank you, Mr. Chairman.

My name is E.C. Broun. I am executive vice president of the Hughes Tool Co. in Houston, TX. I am the elected president of the Petroleum Equipment Suppliers Association. Organized in 1933, PESA is a national association of 287 oilfield service and supply companies, as well as equipment manufacturers.

We do not produce a barrel of oil or an MCF of gas, but we are directly affected by adverse rules, regulations, and policies that curtail the drilling of our resources in this country.

I am here today to speak in support of increased leasing off the California coast. Oil and gas reserves in Federal waters off California are as much a province of the whole country as waters off Texas, Louisiana, Mississippi, Alabama, Florida, and on the east coast.

We at PESA believe that this is a national issue in every sense of the word. Whether the Congress permits leasing or not will impact the welfare of thousands of men and women who make their living directly or indirectly in the oilfield service industry.

Congressman Dannemeyer said this morning that they have 16 platforms in Federal waters and 15 in State waters offshore California. This compares to over 2,800 in the Gulf of Mexico, offshore Texas, Louisiana, Alabama, and Mississippi.

And Congressman Panetta said that they should not offer more leases for sale offshore California because the water was too deep, 700 meters. One of our company's divisions, Hughes Offshore, built the riser to drill two wells in the Baltimore Canyon that were 1,870 meters deep. We have also built a Christmas tree for the Mediterranean to complete a well in 2,500 feet of water.

The oilfield manufacturing service supply industry has developed over the years to meet the growing needs of the major independent companies who search for oil and natural gas. While the industry is concentrated in Texas, Louisiana, Oklahoma, and California, the industry has operations and members in 44 States of the Union.

In 1984, the industry's sales were in excess of $33 billion. Excluding Schlumberger, a French company based in the Netherlands Antilles, the earnings of the industry were negative $100 million.

This is a far cry from the industry's 1981 numbers, $41 billion in sales, $6.2 billion in earnings, and $16 billion in balance of payments, with a work force of 500,000. We believe that they make a convincing case for the economic benefits to be derived from an orderly, expeditious lease program on the Outer Continental Shelf.

PESA's members are widely dispersed throughout the country. For example, construction materials for Florida rigs are manufactured in Ohio, Indiana, Pennsylvania, Illinois, and Wisconsin. Drill pipe and other production equipment and tools are made in Oklahoma, Utah, and Wisconsin. Service vessels and their components and work boats are manufactured in Illinois, Massachusetts, New York, Missouri, Arkansas, and Wisconsin.

Furnishing service and equipment to oil and gas exploration companies is a complex, capital intensive business. To a large extent, equipment is custom manufactured to meet exacting specifications.

I have already indicated that our industry has undergone a substantial contraction. It took us over 80 years and $3.6 billion invested in plant expansion to meet the needs of our customers during the energy boom. When the market turns around again, as it has in the past, once more our industry will be playing catchup, with the attendant bottlenecks and shortages that caused problems 5 years ago.

This brings us to a final concern which I am sure every thoughtful American shares. We live in a world in which terrorism flourishes and nations act in sometimes abrupt and unforeseen ways. We are now dependent on foreign oil for nearly one-third of our energy needs.

It takes 3 to 5 years to bring a new producing area onstream, assuming no major obstacles stand in the way. Otherwise it can take as long as 12 years. This assumes that exploration is successful in the first place. In short, the Nation needs the time required to locate its resources and rebuild the skilled work force necessary to meet its future energy needs, no matter what the external events that may take place.

To summarize my comments, an orderly and expeditious plan to permit increased leasing on the Nation's Outer Continental Shelf would accomplish three objectives:

One, it would employ or reemploy hundreds of thousands of people across the country; it would renew the oilfield service industry and prevent the delays in bringing energy sources to the American people that have occurred in the past; and three, it would provide a small measure of security against the day when our supply of foreign oil could be disrupted or curtailed.

That concludes my remarks.

[The prepared statement of Mr. Broun follows:]

STATEMENT

OF

E. C. BROUN, JR.

HUGHES TOOL COMPANY

On Behalf of the

PETROLEUM EQUIPMENT SUPPLIERS ASSOCIATION

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES

U.S. SENATE

September 17, 1985

Mr. Chairman, my name is E. C. Broun. I am Executive Vice President of the Hughes Tool Company in Houston, Texas, and the elected President of the Petroleum Equipment Suppliers Association (PESA). Organized in 1933, PESA is a national association of 287 oil field service and supply companies as well as equipment manufacturers.

I am here today to speak in support of increased leasing off the California coast. Oil and gas reserves in federal waters off California are as much a province of the whole United States as waters off Texas, Louisiana, Mississippi, Alabama, Florida and the east coast. We at PESA believe that this is a national issue in every sense of the word. Whether the Congress permits leasing or not will impact on the welfare of thousands of men and women who make their living directly or indirectly in the oil field service industry.

The oil field manufacturing/service/supply industry has developed over the years to meet the growing needs of the major and independent companies who search for oil and natural gas. While the industry is concentrated in Texas, Louisiana and Oklahoma, the industry has operations and members in 44 states of the union. In 1984 industry sales were in excess of $33 billion. Excluding Schlumberger, a French company based in the Netherlands Antilles, the earnings of the industry were a negative $100 million. The industry also contributed roughly $10 billion to America's balance of payments.

This is a far cry from the industry's 1981 numbers: $41 billion in sales, $6.2 billion in earnings, $16 billion in balance of payments and a work force of 500,000.

I will not take up the time of the committee with a discussion of the changes in the market that have transformed our industry. I would like to share some numbers with you that you may find interesting. We believe that they make a convincing case for the economic benefits to be derived from an orderly, expeditious lease program on the Outer Continental Shelf. A study by Battelle, Pacific Northwest Laboratories and Data Resources, Inc. found that:

*Accelerated leasing on the Outer Continental Shelf over the next 10 years could result in nearly a million new jobs, a 1 percent increase in the gross national product, and a 25 percent reduction in the federal deficit.

*Industries which show the largest gains are generally those directly involved in OCS activity or are major suppliers to the OCS industry.

Using the results of the Battelle study, estimates are that as many as 250,000 jobs could be added to the economy if the California ban were lifted. The negative effects of the ban would be felt throughout our industry in the continuing trend to consolidate operations and layoff employees.

BEST COPY AVAILABLE

PESA's members are widely dispersed throughout the country. For example, construction materials for exploratory rigs are manufactured in Ohio, Indiana, Pennsylvania, Illinois and Wisconsin. Drill pipe and other production equipment and tools are made in Iowa, Oklahoma, Utah and Wisconsin. Service vessels and their components, helicopters and workboats are manufactured in Illinois, Massachusetts, New York, Missouri, Arkansas and Wisconsin.

Furnishing service and equipment to oil and gas exploration companies is a complex, capital intensive business. To a large extent, equipment is custom manufactured to meet exacting specifications. Fleets of trucks and highly trained crews are required to help maintain exploration equipment. I have already indicated to you that our industry has undergone a substantial contraction. It took us over eight years and $3.6 billion invested in plant expansion to meet the needs of our customers during the energy boom which started in the seventies. When the market turns around again as it has in the past, once more our industry will be playing catch up ball with the attendant bottle necks and shortages that caused problems five years ago.

This brings up a final concern which I am sure every thoughtful American shares. We live in a world in which terrorism flourishes and nations act in sometimes abrupt and unforseen ways. We are now dependent on foreign oil for nearly 1/3 of our energy needs. It takes three to five years to bring a new producing area on-stream assuming no major obstacles stand in the way. Otherwise, it can take as long as 12 years. This assumes that exploration is successful in the first place. In short, the nation needs the time required to locate its resources and rebuild the skilled workforce necessary to meet its future energy needs no matter what external events may take place.

To summarize my comments, Mr. Chairman, an orderly and expeditious plan to permit increased leasing on the nation's Outer Continental Shelf would accomplish three objectives:

*It would employ or reemploy hundreds of thousands of people across the country.

*It would renew the oil field service industry and prevent the delays in bringing energy sources to the American people that have occurred in the past.

*It would provide a small measure of security against the day when our supply of foreign oil could be disrupted or curtailed.

Mr. Chairman, this concludes my prepared remarks. Thank you for giving me the opportunity to appear before you today. I will be pleased to answer any questions that you may have.

Mr. ARNOLD. Thank you, Mr. Broun.
Mr. Simes.

STATEMENT OF NED E. SIMES, CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, DIAMOND M CO., ON BEHALF OF THE INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

Mr. SIMES. Mr. Chairman, my name is Ned E. Simes. I am the chairman, president, and chief executive officer of Diamond M. Co., which is an international offshore drilling contractor.

I appear here today on behalf of the International Association of Drilling Contractors [IADC] an association of over 1,500 companies engaged in all aspects of oil and gas exploration, development, and production. The IADC—I am the 1985 first vice president.

Diamond M is a company that has 12 major mobile offshore units scattered around the world: Four semisubmersibles and three jackups operating in the Gulf of Mexico, two jackups in the Straits of Magellan, Chile, one semisubmersible operating in the Bass Straits of Tasmania off Australia, and the only two semisubmersibles currently operating in offshore California waters.

Diamond M General arrived in California waters in December 1976 for its first job, after making a wet tow of 105 days from the Gulf of Mexico. The capability of this unit is drilling in water depths up to 1,200 feet, and it can drill wells 30,000 feet into the seabed. This unit cost $32 million to build and equip.

The Diamond M Falcon, which is a unit capable of drilling in water depths up to 2,000 feet—and this would cover the area that Mr. Panetta was talking about today—was built in the U.S. Shipyard in March 1983 at a cost of $88 million. It was wet towed from the gulf coast in 90 days to California at a cost of $2.25 million. Again, this unit is capable of drilling up to 30,000 feet into the ocean floor.

These two units provide direct employment for 156 employees. That is only the Diamond M personnel. That is really only the tip of the iceberg when you consider boat operator personnel, helicopter personnel, shore base, warehousing, manufacture, transport, and so forth.

California in its heyday had a maximum of 17 major mobile units operating offshore. At the present, there is only four. Of that four, the two mentioned above are working; there is one jackup that is working. The other one is stacked.

This has been a direct reduction of 1,100 employees working in the OCS of California. Statistics tell us that for every man working on the rig there is possibly a support of 18 different people to support this individual. So this 1,100 people reduction in offshore California workers means approximately 20,000 people being laid off that would support those rigs offshore California.

At the present time, all but two offshore drilling units conducting exploratory work off the California coast, it is itself a dismal comment on the state of the offshore industry of California, where oil and gas producers must satisfy a great number of both local, State, and Federal requirements and regulations before commencing to drill. And while it is generally agreed that offshore California holds great hydrocarbon resources potential, the Congress has time and again through legislative moratoria put the areas with the greatest promise off limits.

The recent attempts at a compromise between the Secretary of the Interior and a select few of the California congressional delegation would have virtually stopped offshore California oil and gas development. I sincerely hope that the Secretary came away from his last month's tour of California coastal communities with his town meetings with a new appreciation of the critical need this Nation has for offshore oil in that State and the thousands of jobs dependent on offshore oil and gas activities in California and throughout the rest of the Nation.

We are running an environmentally safe and proven program in offshore California, as elsewhere around the world. We have certain rules and regulations that are dictated by Congress that we must follow, and we follow these through the EPA rules and regulations religiously.

We get into the problem of—and we have heard a new term here today—the viewshed. And this is new to us, but we do not feel that this is an unsightly condition. For us to continue to provide employment to qualified, trained people in professionally and environmentally safe jobs, we must have continuous work for our equipment, and we can only have continuous work for our equipment if our customers are provided the opportunity to lease and develop these leases.

Thank you very much.

[The prepared statement of Mr. Simes follows:]

STATEMENT
ON
OCS MORATORIA

Ned E. Simes

Chairman, President & CEO, Diamond M Co.

on behalf of the

INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

At Hearings Before the

Committee on Energy and Natural Resources

United States Senate

Washington, D.C.
September 17, 1985

STATEMENT OF NED E. SIMES

My name is Ned E. Simes. I am the Chairman, President, and Chief Executive Officer of Diamond M Company, which is an international offshore drilling contractor. I appear today on behalf of the International Association of Drilling Contractors (IADC), an association of over 1500 companies engaged in all aspects of oil and gas exploration, development and production. For IADC, I am the 1985 First Vice President. Diamond M Company has 12 major offshore drilling units. These units consist of four (4) semisubmersibles and three (3) jackups operating in the Gulf of Mexico; two (2) jackups operating in the Straits of Magellan, Chile; one (1) semisubmersible operating in the Bass Straits of Tasmania, Australia; and two (2) semisubmersibles operating off California.

The Diamond M "General" arrived in California waters in December 1976 for its first job, after making a wet tow of 105 days from the Gulf of Mexico. This unit is capable of drilling in water depths from 125 feet to 1200 feet; it has the capability of drilling wells to 30,000 feet in depth. In 1975, this unit cost approximately $32,000,000 to build and equip.

The Diamond M "Falcon" arrived in California waters in June, 1983, after being delivered by a U.S. shipyard in March 1983 at a total cost of approximately $88,000,000. The wet tow from the Gulf Coast took 90 days and the cash cost to mobilize the unit to California waters was approximately $2,250,000. This unit can drill wells to 30,000 feet in depth, and in water depths of up to 2000 feet.

These two offshore units provide direct employment to 166 people. These are only Diamond M personnel, but this is really only just the "tip of the iceberg". When you consider how many operator personnel, work boats, helicopters, shore base, warehousing, manufacturing, and transportation people are involved, a great many more jobs are involved.

California major mobile rig operations have shrunk from a high of seventeen (17) to the present count of four (4). This represents a direct job reduction of approximately 1100 people in rig personnel alone.

At present there are but two offshore drilling units conducting exploratory work off the California coast. This in itself is a dismal comment on the state of the offshore industry in California, where oil and gas producers must satisfy a great number of local, State and Federal requirements and regulations before commencing to drill. And, while it's generally agreed that offshore California holds great hydrocarbon resource potential, the Congress has time and again through legislative moratoria put the areas with the greatest promise off limits. The recent attempt at "compromise" between the Secretary of the Interior and a select few of the California Congressional delegation would have virtually stopped offshore California oil and gas development. I sincerely hope the Secretary came away from his last month's tour of California coastal communities with a new appreciation of the critical need this nation has for offshore oil in that state, and the thousands of jobs dependent on offshore oil and gas activities in California and throughout the rest of this nation.

One other point I would like to make is that in view of the very expensive costs associated with mobilizing an offshore drilling unit to move to a specific location, and in view of the current very depressed market for offshore drilling rigs and an equally adverse impact on our members' cash flows, West Coast moratoria have a peculiarly perverse impact on areas relatively free of moratoria. To illustrate, Alaska's offshore waters are an active oil and gas province. To a very significant extent, drilling units are available to work in Alaska because — historically — a good number of drilling rigs could move to California for work when winter weather shut in the most hostile working environments offshore Alaska. Absent potential work in California, a drilling unit might be dispatched, perhaps permanently, to foreign waters to work. All this goes to show that a policy denying offshore development in an area of such promise as Southern California is suicidal from a national security standpoint.

The environmental arguments against offshore drilling and production have been sufficiently rebutted. The line of defense now for those who masquerade as "environmentalists", but who in fact are simply against development of any kind offshore California, is "esthetics". I leave to another witness to argue the points on esthetics, but as a drilling contractor I can illustrate the environmental safeguards involved in a drilling operation. Simply stated, there are very little traces of residue going from a drilling rig platform to the water. Those elements that are discharged are subject to stringent EPA regulations. To conduct drilling operations, an EPA discharge permit must be acquired and renewed every three months. The drilling fluids used in the drilling operation aren't oil-based, and haven't been for years. The air emissions from engines on the drilling rig floor are no different than those emitted from trucks moving on California's highways, except that we're now talking about a handful of drilling rigs as opposed to tens of thousands of trucks. Essentially, an offshore drilling unit is virtually pollution free. And, of course, the resource extracted is efficiently transported for ultimate refining and consumption by all Americans. This is a marked contrast to the leaks and discharges coming from oil freighters coming to West Coast ports bringing foreign oil, purchased with dollars, further aggravating our trade imbalance.

For us to continue to provide employment to qualified, trained personnel, and do a professional and environmentally safe job, we must have continuous work for our equipment. For us to have continuous work, our customers must have available to them promising hydrocarbon producing acreage to drill. A moratorium on offshore acreage, through administrative or legislative action, puts thousands of Americans out of work, and undermines the energy security of our nation.

I urge the Senate and the Congress as a whole to not let any one individual or small group of privileged individuals hinder for years the availability of our vital offshore oil and gas supplies.

Thank you.

Mr. **Arnold**. Thank you, Mr. Simes.

Ms. Dinkins.

STATEMENT OF CAROL E. DINKINS, VINSON & ELKINS, HOUSTON, TX

Ms. **Dinkins**. Thank you.

For the record, my name is Carol Dinkins. I am a partner with Vinson and Elkins in Houston, TX. I have submitted a copy of my statement for the record, so I won't read that this afternoon, but I'd like to make several comments about what I said by way of summary.

I have described in that statement the basic process that controls the Outer Continental Shelf lease sales and then the exploration and development, as well as the production from those sales.

And I think it is very clear that Congress has established a complete and a detailed method, one that provides a sequence over a number of years whereby the companies can obtain the leases and go all the way to ultimate development, which we hope they will be able to do on at least some of these tracts.

But this process, which was carefully crafted by Congress, is one that may not be followed in the State of California. For several years, we have seen that just a few members of the California delegation have sought moratoria through the appropriations process and they have bypassed altogether both the energy planning and the environmental assessment that has been established by law.

And now what we are seeing is that they are expanding this into a request for an administrative moratorium by the Secretary of the Interior; and I think it's fair to conclude that an administrative moratorium is no better for the process than is one done through the appropriations mechanism.

The OCS Program in California has really been stymied, and for quite some time. And what we have seen is that Secretary Hodel has tried to move it forward by working with these few members of the delegation, and I think that this has still not been done under the right process. It does not involve all of the right people. It does not contemplate any sort of an orderly timing. It does not provide for consideration of appropriate tracts, and it does not leave any record upon which to evaluate whether what was done was done correctly, or even what was done at all.

All of the decisions, both on the timing and on the location, really should be done through the OCS Lands Act process. That process was established by Congress. It's one that can work and will work if it is allowed to be tested further.

The 5-year plan is intended to propose areas for leasing within a certain timeframe. After public review, after comment by the public, by the Governor of affected States and comment by the Congress, then the 5-year plan may be approved as proposed or it may be modified and the process can move forward to the individual lease sales.

And we shouldn't forget, not for a moment, that what we're talking about here is leasing. We're not talking about exploration, we're not talking about development, and we're not talking about production.

I know that the Congress is considering right now, for example, immigration legislation, and I think here you could consider what they're getting in the way of a lease, the lessee, is a visa, not a work permit. All they're getting is a license to apply for permits under dozens of regulations and laws. And we should not forget that in California those are most more extensive and really in some ways much more onerous and difficult to get than they are in the other States.

But here, because we have just a few people who have demanded that we go outside the process, we're not going to get any assessment under the 5-year plan, we're not going to get any opportunity for public comment and review. You're not going to see that for the Governor, nor for the Congress.

And if this is OK for California, if this is good for California, why not Massachusetts? Why not Louisiana? Why not even Texas? I think that what you will see is that Congress will not be able to follow at all or to see followed by the Secretary the orderly process that it enacted after years of debate and public attention.

Even in California, the administration there, Governor Deukmejian's office, has said by letter—and I would like to introduce a copy for the record—that they were not part of the negotiations. And they have said in the letter that they would expect to see the 5-year program provide the kind of orderly process that would permit them to comment under the Outer Continental Shelf Lands Act, and they suggest that a final agreement not be based solely on political considerations.

When Congress enacted the amendments in 1978, you clearly declared the national policy to be: "The outer continental shelf is a vital national resource reserve, held by the Federal Government for the public, which should be made available for expeditious and orderly development subject to environmental safeguards.' And I think really that's what we need to see in the process that the Secretary finally reaches.

I believe that not only will this be a defensible program; I think it's one that can satisfy the majority of the people and certainly serve the public and the national interest.

Thank you.

[The prepared statement of Ms. Dinkins follows:]

STATEMENT

OF

CAROL E. DINKINS

VINSON & ELKINS

HOUSTON, TEXAS

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

September 17, 1985

Mr. Chairman and members of the Committee. I am Carol E. Dinkins, a partner with the law firm of Vinson & Elkins based in Houston, Texas. Previously I have served as the Deputy Attorney General of the United States and prior to that as Assistant Attorney General for Land and Natural Resources. In these positions, I had substantial responsibilities over litigation involving the OCS leasing process and related legislative requirements. I am pleased to be invited to appear as an expert witness and I hope that my comments will be helpful in the Committee's deliberations.

Through the 1978 Amendments to the Outer Continental Shelf Lands Act (OCSLA), the Coastal Zone Management Act (CZMA) and various environmental statutes, such as the Environmental Policy Act, the Clean Water Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Fish and Wildlife Coordination Act, the Congress has, over the years, established a comprehensive process to govern OCS activities.

Today, I would like to address the process which is already in place that governs all Outer Continental Shelf (OCS) activities. My message to this Committee today is straightforward. On an overall basis, the OCS process, established by Congress, is working. It provides states a significant role vis-a-vis federal OCS decision-making. It protects the environment in the near term and the long term. And I believe it can allow industry to locate, develop, and produce the needed hydrocarbons for the nation. Although industry, I believe, would be pleased to support modest changes to make the process less lengthy and more predictable, such mid-course corrections should not constitute major amendments of either procedure, substance, or the roles of the respective parties. Indeed, I urge that Congress not consider any major, significant changes to the process at this time. The states, the federal government, industry and members of the public need to work to make the requirements established through law aid us in moving forward to supply our energy needs in a manner compatible with our concerns for the environment. A moratoria enacted by the Congress fails to allow the laws to even begin to work.

STATE ROLE IN FEDERAL OCS PROCESS

The consultation procedures of the OCSLA in combination with the consistency requirements of the CZMA clearly provide a full and complete role for the states and local governments.

Provision of state and federal coordination is an essential underpinning of the structure of the OCSLA. Although Congress in enactment of the 1978 Amendments clearly expressed its intent to promote development of the Nation's offshore reserves, it recognized a legitimate role for the states in assuring that federal OCS decisions would accomodate and complement legitimate coastal state resource concerns and priorities. Accordingly, the 1978 Amendments provide both a long-range and a short-range OCS leasing process, each of which requires meaningful consultation by the federal government with the states prior to a lease sale. When OCS activities move into the exploration and development stages, the states have two separate opportunities to exercise their clearly provided prerogatives under the consistency requirements of the CZMA.

Let us first examine the OCSLA. The essential provisions of interest to us today are Sections 18 and 19. Section 18 provides detailed substantive and procedural guidance by which the Secretary of the Interior ("the Secretary") formulates the five-year leasing program. Congress provided a clear role for states in this long-range planning process. Under Section 18(c)(1), the Secretary, in preparing any proposed leasing program, "shall invite and consider suggestions" from the Governor of any affected state or the executive of any affected local government. And under Section 18(c)(2), the Secretary, after preparation of a proposed leasing program, but at least sixty days prior to its Federal Register publication, must submit the program to the Governor of each affected state for review and comment. The Secretary must provide formal response to state requests for modification, and any such correspondence between a Governor and the Secretary will accompany the proposed five-year lease plan when submitted to Congress. Additionally, Section 18(f) mandates the Secretary to establish procedures for review of the proposed program by State and local governments, periodic consultation with State and local governments and "consideration of the coastal zone management program being developed or administered by an affected coastal state." These procedures also apply to any significant revision of the five-year leasing program.

Once the five-year leasing program is in place and the process moves to individual lease sales, the states have a specific role for each lease sale under Section 19 of OCSLA. Under this provision, the Governor of any affected state may submit recommendations to the Secretary regarding the "size, timing, or location of a proposed lease sale". The Secretary accepts these recommendations if they provide for a "reasonable balance between the national interest and the well-being of the citizens of the affected State." If the Secretary makes a determination not to accept the recommendations of a Governor, the Secretary must advise the Governor in writing of the reasons for this decision. This occurs after there is an opportunity for consultation to implement alternatives that would result in a reasonable balance of the various interests. Section 19(d) authorizes judicial review of the Secretary's determination, making it "final" unless found to be "arbitrary or capricious."

The consultation process works. As a result of this process, the Secretary has in the past deleted tracts from OCS sales upon the request of Governors of affected states and also has adopted state recommendations for lease stipulations.

Subsequent to the lease sale stage, the adjacent state gains a more expansive role in the process through the consistency provisions of the CZMA. At the exploration stage and the development or production stage, industry must follow comprehensive procedures to achieve consistency with a state's coastal zone management plan. An OCS lessee first must submit to the Secretary an exploration plan for approval and later a plan of development and production; each such plan must certify that all activities that affect land or water uses in the coastal zone will be conducted in manner consistent with the state coastal zone management program. The state then can concur or disagree with the lessee's certification. If it disagrees, a state may propose alternatives to achieve consistency. If the state decides that the proposed operations cannot be rendered consistent, it will advise the lessee, and the lessee then may choose to file an appeal with the Secretary of Commerce. The Secretary of Commerce may override the state's objection either on the basis of national security interests or by finding that the lessee's proposal is consistent with the objectives of the CZMA.

The consistency requirement is a powerful tool for the states, and when combined with the OCSLA requirements, allows states an opportunity to halt or alter further activities at the stage where they could have an adverse effect on coastal resources.

ENVIRONMENTAL PROTECTION

Certainly both the OCSLA and CZMA are designed and intended to provide environmental protection, but they are not the only means to assure that environmental concerns are addressed in the OCS process.

The full range of federal environmental laws, such as the National Environmental Policy Act (NEPA), the Clean Water Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Fish and Wildlife Coordination Act, all apply to activities on the federal OCS. The states have full opportunity for constructive and meaningful involvement in the application of these laws to OCS activities because these are all federalism statutes implemented and enforced jointly by the state and federal governments.

Pursuant to NEPA, the Secretary must issue a thorough draft and final environmental impact statement (EIS) before each lease sale and conduct public hearings on the draft EIS. Prior to preparation of the draft EIS, Interior conducts informal scoping sessions with interested parties to identify potential areas of concern to be addressed in the EIS. If a discovery occurs, the Secretary must go through the EIS process a second time at least once in every frontier area before development can begin. This requirement provides a second opportunity for the affected states and other parties to comment on a draft EIS and to participate in public hearings covering potential state and local impacts.

In addition to the second generic EIS, prior to proceeding with development activity, a lessee or operator is required to file with the Department of the Interior a development and production plan, as noted earlier. If approval of the development and production plan does not trigger preparation of an additional specific EIS, any affected state has sixty days to review and to comment on the plan. Also it should always be kept in mind that, in many ways, a lease is only a license to apply for permits -- up to 17 of them issued under 74 sets of state and federal regulations. Here again with the lessees' applications for permits, the states have numerous opportunities to influence OCS activities and to assure protection of the coastal environment.

INDUSTRY CONCERNS

The final area of interest today is whether the OCS process works for industry. Industry must have predictability in the OCS process. The OCS process must not foster a situation which leads to waste of financial resources nor of the time of the people involved.

To be healthy, industry must be able to anticipate its future needs. Where there is an orderly process with a predictable schedule which can be achieved by moving forward with the Secretary's five-year program, industry can plan for the exploration and ultimately, the development of reserves, if commercial quantities of oil and gas are located. The OCSLA amendments of 1978, as well as implementation of state coastal zone management plans are yet new and must be further used and tested, but we believe they can be workable. Certainly, industry would not choose so lengthy and cumbersome a process with so many opportunities for delay or derailment, but this process clearly does provide ample opportunity for state involvement and ample safeguards for environmental protection. If any alterations are contemplated, and I do not today recommend any, I urge that they be simply designed only to streamline the process and render it more predictable.

State of California
SACRAMENTO

JANANNE SHARPLESS
Secretary of
Environmental Affairs

September 10, 1985

Hon. Mike Lowry, Chairman
Subcommittee on Panama Canal/Outer Continental Shelf
Committee on Merchant Marine and Fisheries
Room 1334
Longworth House Office Building
Washington DC 20515

Dear Congressman Lowry:

Thank you for your invitation to appear before the Subcommittee on September 11, concerning the Congressional OCS Moratoria Preliminary Agreement with the Department of the Interior. I regret that prior commitments will keep me from attending this hearing, but I would like to provide you with some information regarding the Deukmejian Administration's preliminary review of this agreement.

We appreciate the efforts by Secretary Hodel and members of the Congressional delegation to resolve the long-standing dispute on the future of energy development off the coast of California. We feel that some agreement on this issue is necessary in order to achieve a reasonable balance between the nation's need for energy with California's interest in preserving its unique coastline. We also are aware of the extent of the effort that must go into shaping a final compromise that will be acceptable to the many interests with a stake in this issue.

Because we were not part of the negotiations on the Preliminary Agreement, we have been able to assess this proposal only during the last several weeks. In this review, we have been closely following the reactions expressed during Secretary Hodel's recent meetings with the public in California, and we have been conducting a technical analysis of the details of the agreement. Our full review is not yet complete, but we do have some general observations that may be of use to the Subcommittee.

First, a final agreement should not be based solely on political considerations. The final details must take into account a broader range of factors, including the potential contributions to the nation's energy supplies, environmental conditions in the affected areas, implications to the local economies, and the potential for impacts to air quality, public services, and other onshore resources.

Second, this Administration does not believe that moratoria are an effective way to resolve problems associated with offshore drilling. This approach is a rigid, "all or nothing" reaction that does not provide any opportunity for compromise. It also does not provide any environmental protections, and merely delays the hard decisions on these measures. Such delays ensure that if moratoria are ever lifted in an energy emergency, there will be no guarantee that the subsequent development will incorporate adequate environmental protections.

Instead of moratoria, Governor Deukmejian has long advocated a detailed, area by area analysis of offshore proposals. This approach allows us to focus the debates on offshore development only to those areas where the energy reserves appear to be sufficiently large, to refine such areas to where energy development can proceed safely and with adequate environmental safeguards, and finally to identify areas that should be off limits to drilling due to the presence of environmentally sensitive or unique resources. This type of approach also provides the opportunity for consultation with the full range of affected interests, and the use of cooperative measures that are necessary to achieving a proper balance between meeting the nation's energy needs and preserving our coastal environment.

Finally, the final agreement has to he evaluated from the standpoint of the entire OCS Leasing Program. Our initial comments last September on the new 5-Year Leasing Program stressed that the Program should be focussed on those areas that are appropriate for leasing within the 5-year period, and delete those areas which will not be considered due to environmental constraints and multiple use requirements. Secretary Hodel's recent comments on certain environmentally sensitive areas in the moratoria tracts appear to respond to this recommendation, but we will not have the full information on Interior's proposed activities off California until the Proposed 5-Year Leasing Program is released later this or early next year.

I appreciate this opportunity to present some of our preliminary thoughts on the proposed agreement. I will be happy to provide you with the results of our detailed analysis once it is available.

Sincerely,

Jananne Sharpless

Jananne Sharpless
Secretary of Environmental
Affairs

cc: Governor's Office

Mr. **Arnold.** Thank you, Ms. Dinkins.

Mr. Bowles.

STATEMENT OF LARRY G. BOWLES, GEOPHYSICAL SERVICES INC., ON BEHALF OF THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS

Mr. **Bowles.** Thank you.

My name is Larry Bowles. I am an employee of Geophysical Services, Inc., a wholly owned subsidiary of Texas Instruments, Inc.

Today, I am here to speak on behalf of members of the International Association of Geophysical Contractors, abbreviated IAGC. Membership is comprised of contractors and the geophysical divisions of integrated petroleum companies. Our members do virtually all of the petroleum finding and development geophysics in the United States.

Without going into detail about what geophysical exploration is about, I would like to submit this booklet which explains it in a little more detail. We are engaged in a high technology, sophisticated, scientific, and engineering endeavor to help get a first approximation of the resources off the Outer Continental Shelf. But I hasten to add that only through integrating our data along with the drilling program can you really get a significant improvement in the estimation of resources.

The U.S. petroleum industry's activities have resulted in over 31,000 environmentally safe wells, geophysical data for resource assessments by the Department of Interior at nominal cost to them, and a singular major blowup and oil spill episode whose environmental effects were short lived and that occurred over 15 years ago, and that was an eon ago in terms of present technology for oil spill prevention, containment, and cleanup.

There have been no significant adverse environmental effects. There have been significant beneficial environmental effects. There have been billions of barrels of oil, condensate, and zillions of cubic feet of natural gas for various purposes.

There have been numerous small businesses spawned and facilities that serve not only the offshore industry, but also the general public. There have been thousands of jobs, and those jobs are distributed among all 50 States.

There have also been billions of dollars for the Federal Government, the U.S. Treasury, the commercial fishermen's compensation fund, the land and water conservation fund, and the historic preservation fund, of which the latter two are specifically for education, research, recreation, and preservation activities related to natural and manmade resources of State, regional, national, and international scope. In fact, in budget year 1983, 90 percent of the land and water conservation fund and nearly all the historic preservation fund came from offshore activities.

While operating within a Government program, fully in compliance with resource management and environmental protection laws, our industries have not been content to just follow the letter of the laws, but we have reached out to Government and the other users of the ocean's surface and resources to resolve real present and potential problems. And I have five documents I would like to submit with my testimony that describe some of those programs.

The offshore petroleum industry becomes a vital—correction—performs a vital and continuing valid role in our society, while behaving as corporate good citizens. A moratorium is not only superfluous with respect to protecting the environment and the rights of other ocean users, but it is an undeserved punishment of our industry and of the general citizenry in every State of this Nation.

Adverse effects of moratoria include: Losses of jobs, losses of millions of dollars invested in the faith that the moratoria eventually would be released, loss of Government revenue and the projects that that revenue would pay for, diminished knowledge of our petroleum resources, and diminished capacity of our industry to fulfil the needs of our Nation for our services at a critical time in our trends away from energy security.

I have here a copy of a letter from the President of my company to Secretary Hodel which describes that the proposed preliminary tentative agreement that was announced recently would have the effect of over $30 million loss in business revenue, from data already collected, money already spent, because that data would become public under the present law and regulations before that moratoria in year 2000.

And then in addition to that would be about $40 million in business that would not be performed by our clients in that same time, from now until the year 2000. In addition, nearly a half a billion dollars that have been spent by the Federal Government on OCS environmental effects studies.

At our own cost, IAGC members have furnished expertise, crews, and vessels for research in marine mammals, fish, commercial fishing, and multiuser space use conflict resolution. We have been very active in some worthy social experiments, in negotiating and consensus-building among State and Federal agencies and environmental protectionists and commercial fishermen, not only in California but also in Alaska.

In summary, a moratorium, legislative or administrative, is just the opposite action we would expect in light of our record, present conscientious efforts, our continuing commitment to the letter and spirit of the laws, and our valid and critical role in society.

We urge you to reject the OCS moratoria in whatever guise they may take and allow management of our Nation's resources to proceed in the orderly, balanced, and consultative manner provided for by the OCS Lands Act and implementing regulations.

Thank you.

[The prepared statement with attachments submitted by Mr. Bowles follow:]

STATEMENT IN BEHALF OF
THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS

TO

THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

SEPTEMBER 17, 1985

MR. CHAIRMAN, MY NAME IS LARRY G. BOWLES.

I AM AN EMPLOYEE OF GEOPHYSICAL SERVICE INC., A WHOLLY OWNED SUBSIDIARY OF TEXAS INSTRUMENTS INCORPORATED. TODAY I SPEAK IN BEHALF OF THE MEMBERS OF THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS (IAGC), WHICH IS COMPRISED OF CONTRACTORS AND GEOPHYSICAL DIVISIONS OF INTEGRATED PEROLEUM COMPANIES WHO DO VIRTUALLY ALL OF THE PETROLEUM FINDING AND DEVELOPMENT GEOPHYSICS IN THE UNITED STATES OF AMERICA. MORATORIA ON EXPLORATION AND LEASING OF OCS ACREAGE ARE NOT NEEDED, AND ARE DETRIMENTAL TO:

- WISE RESOURCE MANAGEMENT;
- OUR NATION'S ENERGY SUPPLY FUTURE; AND
- NATIONAL, STATE, AND LOCAL ECONOMIES.

U. S. OCS PETROLEUM INDUSTRY ACTIVITIES HAVE RESULTED IN:

- OVER 31,000 ENVIRONMENTALLY SAFE WELLS;
- GEOPHYSICAL DATA NECESSARY FOR RESOURCE ASSESSMENTS BY THE DEPARTMENT OF THE INTERIOR (AT NOMINAL COSTS TO THEM);
- A SINGULAR MAJOR BLOWOUT OIL SPILL EPISODE WHOSE ENVIRONMENTAL EFFECTS WERE SHORT LIVED, AND THAT OCCURRED OVER 15 YEARS AGO (AN EON AGO IN TERMS OF PRESENT TECHNOLOGY FOR OIL SPILL PREVENTION, CONTAINMENT, AND CLEANUP);

- NO SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS;
- SIGNIFICANT BENEFICIAL ENVIRONMENTAL EFFECTS;
- BILLIONS OF BARRELS OF OIL AND CONDENSATE, AND ZILLIONS OF CUBIC FEET OF NATURAL GAS FOR FUEL, LUBRICANTS AND PETROCHEMICALS THAT HAVE BEEN A MAJOR PART IN THE PROGRESS OF THE QUALITY OF LIFE IN OUR COUNTRY;
- NUMEROUS SMALL BUSINESSES, AND FACILITIES THAT SERVE THE GENERAL PUBLIC AS WELL AS THE OFFSHORE INDUSTRIES SUCH AS COMMERCIAL FISHING, AND PETROLEUM EXPLORATION AND DEVELOPMENT;
- THOUSANDS OF JOBS DISTRIBUTED AMONG RESIDENTS OF ALL 50 STATES RESULTING FROM DIRECT EMPLOYMENT IN THE PETROLEUM INDUSTRY AS WELL AS IN THE BUSINESSES WHO SUPPLY GOODS AND SERVICES TO THE INDUSTRY AND OUR EMPLOYEES; AND
- BILLIONS OF DOLLARS FOR DISTRIBUTION TO:
  - THE U. S. TREASURY;
  - THE COMMERCIAL FISHERMEN'S COMPENSATION FUND;
  - THE LAND AND WATER CONSERVATION FUND; AND
  - THE HISTORIC PRESERVATION FUND

  (OF WHICH THE LATTER TWO ARE SPECIFICALLY FOR EDUCATION, RESEARCH, RECREATION, AND PRESERVATION ACTIVITIES RELATED TO NATURAL AND MAN-MADE RESOURCES OF STATE, REGIONAL, NATIONAL, AND INTERNATIONAL SCOPE).

WHILE OPERATING WITHIN A GOVERNMENT PROGRAM FULLY IN COMPLIANCE WITH RESOURCE MANAGEMENT AND ENVIRONMENTAL PROTECTION LAWS OUR INDUSTRIES HAVE NOT BEEN CONTENT TO JUST FOLLOW THE LETTER OF THE LAWS, BUT WE HAVE REACHED OUT TO GOVERNMENT AND TO OTHER USERS OF THE OCEANS SURFACE AND RESOURCES TO RESOLVE REAL PRESENT AND POTENTIAL PROBLEMS.

THE OFFSHORE PETROLEUM INDUSTRY PERFORMS A VITAL AND CONTINUING VALID ROLE IN OUR SOCIETY WHILE BEHAVING AS CORPORATE GOOD CITIZENS. MORATORIUM IS NOT ONLY SUPERFLUOUS WITH RESPECT TO PROTECTING THE ENVIRONMENT AND RIGHTS OF OTHER OCEAN USERS, BUT IS AN UNDESERVED PUNISHMENT OF OUR INDUSTRY AND OF THE GENERAL CITIZENRY IN EVERY STATE OF OUR GREAT NATION.

THE ADVERSE EFFECTS OF MORATORIA INCLUDE:

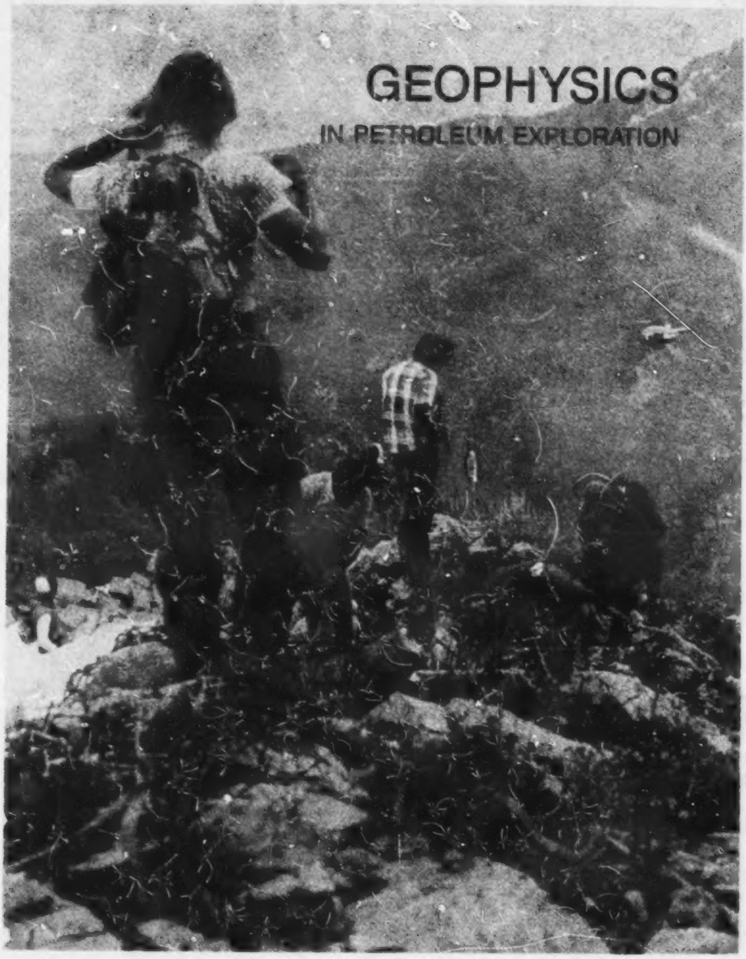
- LOSS OF JOBS;
- LOSS OF MILLIONS OF DOLLARS INVESTED IN FAITH THAT OUR ELECTED AND APPOINTED OFFICIALS WOULD END MORATORIA;
- LOSS OF REVENUE AND PROJECTS FOR THE PUBLIC GOOD AT LOCAL, STATE, NATIONAL AND INTERNATIONAL LEVELS;
- DIMINISHED KNOWLEDGE OF OUR PETROLEUM RESOURCES; AND
- DIMINISHED CAPACITY OF OUR INDUSTRY TO FULFILL THE NEEDS OF OUR NATION FOR OUR SERVICES AT A CRITICAL TIME IN OUR TRENDS AWAY FROM ENERGY SECURITY.

IN ADDITION TO THE NEARLY HALF-BILLION DOLLARS THAT HAVE BEEN SPENT BY THE FEDERAL GOVERNMENT ON OCS ENVIRONMENTAL EFFECTS STUDIES, AT OUR OWN COST IAGC MEMBERS HAVE FURNISHED EXPERTISE, CREWS AND VESSELS FOR RESEARCH OF MARINE MAMMALS, FISH, COMMERCIAL FISHING, AND MULTI-USER SPACE USE CONFLICT RESOLUTION. WE HAVE BEEN VERY ACTIVE IN SOME WORTHY SOCIAL EXPERIMENTS WITH NEGOTIATING AND CONSENSUS BUILDING AMONG STATE AND FEDERAL AGENCIES, ENVIRONMENTAL PROTECTIONISTS, AND COMMERCIAL FISHERMEN (INCLUDING IN CALIFORNIA AND ALASKA). OUR CREWS, SUPERVISORS AND MANAGERS ARE TRAINED, BRIEFED AND ENCOURAGED TO DISPLAY THE SPIRIT OF COMMUNITY IN TECHNOLOGY DEVELOPMENT, PLANNING AND OPERATIONS.

WE HAVE (AND IF JOB OPPORTUNITIES STILL EXIST, THE NEXT GENERATION OF GEOPHYSICISTS WILL CONTINUE THE PROCESS) DEVELOPED TECHNOLOGIES THAT PROVIDE BETTER SERVICE TO GOVERNMENT AND INDUSTRY DECISION MAKERS AND, AT THE SAME TIME, ARE TENDER TO THE ENVIRONMENT. SINCE GEOPHYSICAL EXPLORATION IS USUALLY THE FIRST OFFSHORE PETROLEUM INDUSTRY ACTIVITY IN A GIVEN AREA WE RECOGNIZE WE ARE THE LEADING EDGE OF REPRESENTING THE WHOLE INDUSTRY. WE HAVE ACCEPTED THAT RESPONSIBILITY AND HAVE EXEMPLIFIED GOOD CORPORATE CITIZENSHIP.

A MORATORIUM, LEGISLATIVE OR ADMINISTRATIVE, IS JUST THE OPPOSITE ACTION WE WOULD EXPECT IN LIGHT OF OUR RECORD, PRESENT CONSCIENTIOUS EFFORTS, OUR CONTINUING COMMITMENT TO THE LETTER AND SPIRIT OF THE LAWS, AND OUR VALID AND CRITICAL ROLE IN OUR SOCIETY.

WE URGE YOU TO REJECT OCS MORATIA IN WHATEVER GUISE THEY MAY TAKE, AND ALLOW MANAGEMENT OF OUR NATIONS RESOURCES TO PROCEED IN THE ORDERLY, BALANCED, AND CONSULTATIVE MANNER PROVIDED FOR BY THE OCS LANDS ACT AND IMPLEMENTING REGULATIONS.



GEOPHYSICS

IN PETROLEUM EXPLORATION

Offshore production platforms, such as this in the Gulf of Mexico, are major contributors to America's energy supply.

INTRODUCTION

The United States is a highly industrialized, energy dependent nation. We demand vast quantities of energy to fuel our farms and factories, to heat and cool our homes and offices, and to keep our transportation systems moving. Much of our energy comes from petroleum—crude oil and natural gas.

In the first half of 1984, for example, about 42 percent of our energy came from crude oil, 26 percent from natural gas, 22 percent from coal, and 10 percent from hydroelectric, geothermal and nuclear power.

During 1983, nearly one-third of the liquid petroleum we consumed came from foreign sources . . . a trend which continued into 1984. In 1983, we imported—on average—nearly 5 million barrels of crude oil and refined petroleum products every day. That year, we produced almost 3.2 billion barrels of crude oil and nearly 17 trillion cubic feet of natural gas.

In 12 of the past 15 years, we used our known reserves of oil and gas faster than we were able to replace them. Despite substantial exploration activities here, over the past 10 years, this nation has used some 6.5 billion barrels more domestic crude oil and some 37 trillion cubic feet more natural gas than were added to our reserves.

Several factors have contributed to this shortfall:

- First, most of the largest oil and gas reservoirs in the lower 48 states already have been found and placed in production.
- Second, production from most of these fields has peaked and is declining.
- Third, most of the nation's remaining undiscovered resources are thought to lie in unexplored areas off our coasts or in more hostile environments and in geologically complex onshore areas where it is more difficult and costly to look for new fields.
- Fourth, the federal government, which controls access to large, prospectively valuable lands, both onshore and offshore, has not kept pace in leasing these lands with the industry's exploration capabilities; millions of promising federal acres have been closed unnecessarily to the search for oil and gas by legislative and regulatory restrictions.

U.S. Petroleum Resources

As of the start of 1984, the United States had about 36 billion barrels of crude oil and natural gas liquids and 200 trillion cubic feet of natural gas in reserves recoverable from known reser-

Left: A test flare helps assure safety at this West Texas oil field.

Right: Imports account for nearly one-third of the oil America now uses.

voirs. Despite conservation and extensive exploration activities, that's roughly about a 10-year supply of domestic oil and natural gas at current rates of production. That's not a very great margin of reserves, when one considers the long exploration and development time-frame—from 6 to 15 years—that is needed to prepare for onshore and offshore lease acquisition, search for the oil and gas on the leased tracts and, if petroleum is found in commercially producible quantities, to bring the field into full production.

That does not mean, of course, that this nation is about to run out of oil and gas. Exploration is continuing, and large amounts of undiscovered petroleum are thought to exist here—oil and gas which could be found and recovered with today's technology and economics—if the opportunity to widen the search is provided.

According to the U.S. Geological Survey, there may be as much as 123 billion barrels of liquid petroleum and up to 739 trillion cubic feet of natural gas in undiscovered reservoirs onshore and off our coasts. Thus, we could add substantially to our reserves under government policies that encourage the timely search for domestic oil and gas.

The Federal Government's Role

According to the U.S. Department of Energy, as much as one-half of the oil and gas remaining to be found in the United States may underlie government lands. Those lands include some 720 million onshore acres and 966 million additional acres off our coasts. Together, the federal onshore and offshore domain comprises more than one-half of the lands of the United States to the 2,500-meter water depth.

Most of these federal lands are, by law, open to multiple use, including petroleum exploration and production. The managing agencies have the responsibility to:

- evaluate the environmental impact of leasing,
- assess the resource potential of those lands,
- publish and administer rules for minerals exploration and management,
- see that the lands are open to multiple use, where such use is appropriate; and
- collect rents and fees due on tracts which are leased, as well as royalties on any petroleum produced.

Unfortunately, lands have not always been opened to multiple use as called for in the original legislation, despite the conscientious efforts of many federal managers. Millions of acres of federal lands have been closed to petroleum and other energy development . . . by congressional action and local decisions. To a very large degree, these withdrawals have been based on a misunderstanding of the environmental effects of exploration and production activities and of the petroleum and geophysical industries' safety record.

Even under the most ideal governmental climate, however, finding new reserves of oil and gas will not be easy. It will take all of the exploration skills and technology developed since the first oil well was completed in the United States over 125 years ago to make that search successful. But that search must be made. The first step in that search lies in a thorough understanding of the earth's crust and of the dynamics that create petroleum accumulations.

A plume of lava spews from deep within the earth's molten interior.

PETROLEUM GEOLOGY

It is now the most commonly accepted theory that crude oil and natural gas were formed from the remains of countless billions of prehistoric animals and plants in ancient seabeds. The remains were covered with layers of sedimentary debris and subjected to pressure and heat. Over time, chemical decomposition changed the plants and animals into the hydrocarbons (complex combinations of hydrogen and carbon) we know today as petroleum.

Petroleum takes many forms. It is most frequently found in its liquid and gaseous states, rather than as a solid. As a liquid, it is known as "crude oil," in its gaseous state as "natural gas" and as a solid by a number of names, including "asphalt" and "bitumen."

- *Crude oil*. As it comes from the ground, crude oil is usually black and odorous. It can also be virtually colorless or fall within a wide range of colors, depending on its chemical composition and the amount of oxygen, sulfur, nitrogen and trace metals present. Its viscosity (resistance to flow) can vary from watery thin to a tar-like consistency. Although crude oil can be refined into thousands of useful products, it is of little use in its natural state.
- *Natural gas*. Like crude oil, natural gas as it comes from the ground can contain a number of impurities—such as hydrogen sulfide or carbon dioxide. Once these impurities are removed, the gas can be used directly as a fuel or as feedstock for the production of a wide range of chemicals and other products.
- *Natural gas liquids*. These liquids are a form of petroleum obtained during production of natural gas or during the processing of natural gas at surface facilities.
- *Bitumen*. Use of bitumen dates back to man's early history. Primitive man coated his boat with this natural hydrocarbon to make the craft waterproof. Asphalt, a form of bitumen which occurs both naturally and is produced during the refining process, is used extensively in surfacing and repairing roads.

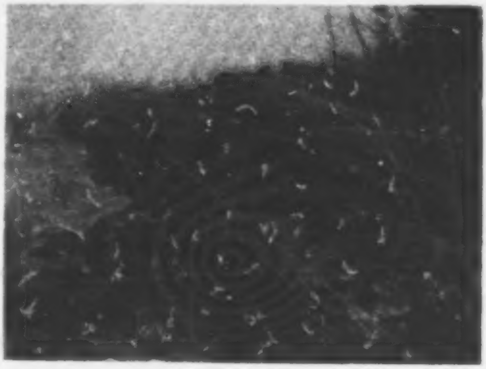
Although usually found deep within the earth, petroleum deposits are sometimes found near or at the surface. In some parts of California, for example, tar may be seen as natural seeps on the banks along the shore, as well as in large pools at the famous La Brea tar pits in the heart of Los Angeles. Worldwide, there are many examples—onshore and offshore—of natural oil seeps. It is estimated, for example, that natural oil seeps in the Santa Barbara Channel off Southern California release as much as 150 barrels of oil a day into that water environment.

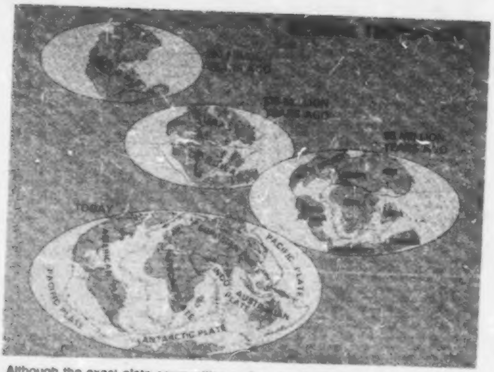
Oil and gas are not found in vast underground lakes or rivers. Rather, petroleum collects in voids in carbonate rocks (such as limestone) or between the grains of sand in the reservoir rocks and often must be "coaxed" to the surface.

In their natural state, petroleum deposits are usually found in combinations of crude oil, natural gas, natural gas liquids and water. Underground, natural gas (which is the lightest) tends to rise to the top of the accumulation. Oil (which is heavier than natural gas but lighter than water) tends to form a middle layer, with water (the heaviest) underlying the petroleum.

The natural pressures generated by gas and water in a petroleum reservoir provide important information to the earth scientists in determining whether it is economical to attempt to recover oil and gas deposits that are found. These pressures include pressure gradient (the difference between the

A diorama of a prehistoric seabed. Scientists believe such plant and animal life was the source of today's oil and natural gas.





Although the exact plate composition and sequence of movement are disputed, the concept of plate tectonics is shown above.

pressure at two points), gravity and capillary action (where the oil and water tend to be drawn into openings between the grains of rock).

In some instances, these pressures are sufficient to move the oil and gas into and up the well for surface recovery. Often, however, it is necessary from the beginning of recovery operations to "assist" the underground petroleum in its journey to the surface with pumps. Additionally, injection wells may be drilled a distance away from the recovery well and used as conduits for water, gases or chemicals pumped into the formation to push the oil and gas towards the recovery well.

But how did the oil and gas get there in the first place? What holds it there? How can it be found and recovered? These are questions that have concerned petroleum geologists, geophysicists and engineers since the search for oil and gas began.

Petroleum is found within the pores of subterranean strata.

Earth Dynamics and Petroleum

It is estimated that the earth is about 4.5 billion years old. As its molten surface cooled, the earth cracked and buckled. Huge plates were formed on the sea of magma (molten rock). These plates—moving over the magma—collided, separated and collided again and again throughout the geological ages . . . and continue to collide today. Mountains were formed, volcanoes erupted and, as the surface cooled further, the atmosphere formed, condensed as rain and began to erode the crustal rocks.

For a few billion years this process continued—cooling, condensing, eroding on the stark and lifeless planet. But a new dimension was added, perhaps a billion years ago. Microscopic life-forms began to appear—first fungi, bacteria and algae; then protozoa, sponges and corals.

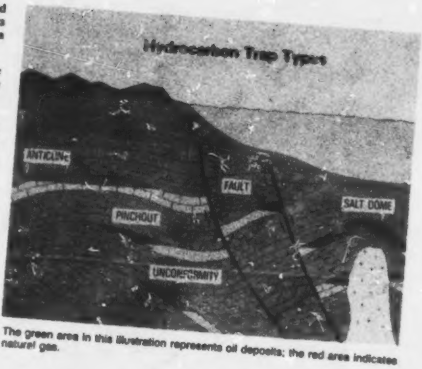
As these life-forms died, they drifted down to the seabed to be mixed with and covered by sands, muds and silts from the eroding landscape. In other areas, where there were no sands or silts to dilute them, the remains of the life-forms accumulated on the sea floor and formed huge beds of calcium carbonate or, as in the case of coral, massive reefs of calcium carbonate. Under the weight of continuing deposition and through chemical alteration, these materials were compressed and cemented into sedimentary rocks—the organic-rich sands and muds into sandstones and shales and calcium carbonate reefs and muds into limestones. It is these rocks of marine origin that are now sought out by petroleum scientists throughout the world.

Yet organic material and erosion debris alone were not enough to create petroleum reservoirs. A number of factors must have been present in the right sequence and for the correct length of time. There had to be:

- source rocks—marine shales—containing large amounts of organic material,
- adequately thick sedimentary rocks and sufficient heat and passage of time to convert the organic material into hydrocarbons,
- reservoir rocks (sandstones and limestones) to store the oil and gas that formed,

- a migration route for the oil and gas to travel from the source rocks to the reservoir rocks and into a trap.
- a geologic trap to prevent the petroleum from escaping from the reservoir rock and dissipating.
- sufficient permeability and porosity within the reservoir rocks to permit the accumulation of substantial amounts of oil and gas, and
- a drive—pressure from water or gas—to force the petroleum to migrate into the reservoir rock.

The absence of any one of these characteristics prevents the amassing of recoverable amounts of petroleum. If, for example, the reservoir is sufficiently porous (there are large enough spaces between the grains of the rock to hold oil and gas) but the rock is not permeable enough (does not have adequate passageways between the rock grains to allow the oil and gas to move from pore to pore), the petroleum cannot migrate or concentrate and, thus, cannot be recovered. Or, if the trap becomes defective, the oil and gas may disperse throughout adjoining rock layers.



The green area in this illustration represents oil deposits; the red area indicates natural gas.

There are several types of geologic features of particular interest to petroleum scientists. The most common are "faults," "anticlines" and "stratigraphic traps":

- **Fault**. A fault is a fracture in the rock formation created when one section of the formation moves in relation to another. When permeable rocks containing oil and gas are moved adjacent to impermeable rocks, the petroleum becomes trapped.
- **Anticlinal trap**. An anticline is formed when layers of rock are folded upward by earth movement. Oil and gas within the reservoir will tend to migrate to the highest point within the structure. Where a caprock (an overlying layer of impermeable rock—commonly shale) exists above a reservoir rock in an anticline, a trap may form and prevent the upward escape of the oil and gas.
- **Stratigraphic trap**. These geologic features are formed by a change in the character or extent of the reservoir rock. For example, sand can become cemented into impermeable rock at one point in the formation, preventing the upward migration of petroleum from the reservoir rock. Underground water may leach out pockets where oil or gas can accumulate. Or a permeable, petroleum-bearing layer may be "pinched out" (tapered to a disappearing edge) and sandwiched between layers of impermeable rock.

There is no hard and fast distinction among the types of traps that may be formed in any one oil or gas field.

Finding these geologic traps and testing them for their petroleum potential is the job of the petroleum scientist. It is an art and a science that continues to develop as the challenge of finding new oil and gas reserves becomes more difficult and demanding.

Nature is a major force in humbling mighty mountains.

Left: A seismic crew manager checks a printout at a portable "doghouse" 10,000 feet up in the Rocky Mountains.

GEOPHYSICAL EXPLORATION FOR OIL AND GAS

The geophysical industry in the United States employs more than 40,000 professionals and technicians. Expenditures for petroleum geophysical and geological work in this nation in 1982 — the latest U.S. Bureau of Census figures available—reached almost $3 billion. And during 1983, nearly 5,300 crew months (the total number of months all geophysical crews were in the field surveying) were spent surveying petroleum prospects in the United States. Of this time, some 94 percent was spent in seismic surveying.

Data gathering is done primarily by geophysical contractors. There are, however, a few oil companies that maintain onshore seismograph crews for proprietary surveys and experimental research, as well as geophysical vessels for offshore surveys.

Information gathered during geophysical surveys is regarded as highly proprietary. The cost of acquiring the data and its use in assessing the potential for finding oil and gas in an area — usually before a drilling and production lease is obtained—makes such information particularly valuable to the company or companies participating in the surveys.

Modern-day petroleum exploration geophysics is based on three important earth properties—density, magnetization and acoustic response. Special equipment and methods have been developed to aid scientists in examining these properties through geophysical surveys.

Gravity Surveys

One way to measure the density of the strata lying far below the earth's surface is by calibrating its gravitational "pull." This is done with a gravity meter (or gravimeter). This device—first developed in 1899—measures the weight of an object in the instrument. If there are dense rocks near the surface, a spring-loaded weight in the instrument will weigh more, since denser rocks exert greater gravitational pull than those which are less dense.

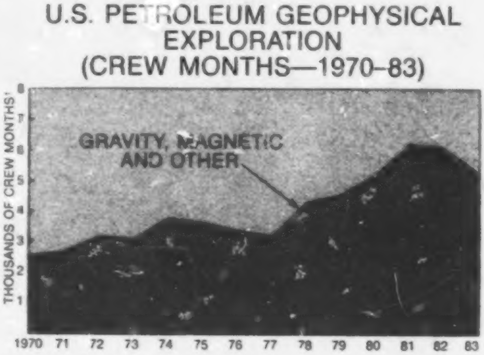
Usually, the denser rocks are older and their presence near or far from the surface indicates an underlying shallow or deep basement. Thus, a structural "high"—such as an anticline—will often appear as a high reading on the gravimeter. Conversely, a structural "low"—a syncline, for example—would often show up as a low gravity reading. The low density of a salt dome, an upward-thrust column of salt, will be reflected on the instrument as having a lesser gravity value.

When using a gravity meter offshore, it is necessary to place the instrument so that it remains level, regardless of the movement of the vessel. The rise and fall of the ship and other effects of its travel must be measured by other equipment and taken into account when the gravity data are processed.

Magnetic Surveys

The natural magnetic properties of rocks can be useful in the early stages of petroleum exploration. More than three centuries ago, it was found that a freely suspended magnetic needle will move away from a level position in response to the presence of nearby iron. In 1879, this principle was applied in the first magnetometer, a simple device combining a magnetized needle with a compass. Both types and depths of

Geophysical activity in the United States from 1970 to 1983 is shown below.


U.S. PETROLEUM GEOPHYSICAL EXPLORATION (CREW MONTHS—1970–83)

[1] Total number of months that all crews were active
Source: Society of Exploration Geophysicists

A space satellite image of northeastern Pennsylvania.

THE CHALLENGING WORLD OF GEOPHYSICS

Modern-day *geology*—the scientific study of the origins, history and structure of the earth—includes a wide range of earth sciences and a number of highly specialized disciplines. *Geophysics* is the study of the physical properties and interactions of the earth, its surface and subsurface solids, the waters on and within the earth, and the atmosphere above it. These sciences are used by petroleum geologists, geophysicists and engineers to better locate and recover the mineral and energy resources from within the earth's crust, that thin layer of cooler rocks overlaying our planet's molten interior.

Petroleum geophysics, to a large degree, concerns the analysis of data obtained remotely from the surface of the earth on the physical properties of subsurface layers (strata), as they relate to the search for crude oil and natural gas. It primarily involves studying density of rock layers through gravity measurements, magnetic properties of the rocks and response of rock layers to probing by sound waves. Included are the acquisition of geological data, processing of the data to remove unwanted effects and interpretation of the results to evaluate the oil and gas potential of the study area.

For the petroleum geophysicist, geologist and engineer, the fine lines of distinction among these disciplines often become immaterial. The goal of each is to study the earth to discover commercially producible quantities of crude oil and natural gas. Working together, these earth scientists increase the chances that the search will be successful.

The primary geophysical tools used in this search are the magnetometer, gravimeter and seismograph. While these tools have been used in exploration for many years, petroleum geophysics is by no means a static science. Indeed, it has advanced to the leading edge of today's technology in the search for oil and gas.

The advent of the computer has changed—and continues to change on an almost daily basis—the ability of petroleum scientists to interpret the data obtained from far below the surface of the earth. But the search for oil and gas still begins in the field, with the accumulation of geologic, magnetic, gravity and seismic data.

As used today, petroleum geophysics is environmentally safe. It is "high tech." It is continually being improved and refined. It is the nation's best hope for finding the oil and gas America will need—not in some far distant future, but within the coming decade.

rocks far underground affect how much and in which direction the needle will move.

Using a magnetometer, earth scientists can measure the depths at which basement rocks lie. These rocks are usually from an age called the Precambrian period and date back more than 600 million years. They contain large amounts of magnetite, a naturally occurring iron oxide having magnetic properties.

Where petroleum-bearing sedimentary rocks overlie these basement rock formations, the magnetometer can be used to indicate variations in the thickness of these sedimentary layers. This information can provide the scientist with a valuable clue as to the probability that those sediments, bent by the underlying basement rocks, may provide the right conditions for the accumulation of recoverable quantities of oil or natural gas.

It is not always necessary to place instruments on the ground to measure the magnetic attraction of the subterranean rock layers. Magnetometers can also be used from aircraft flying high above the surface to determine quickly areas of general interest. Use of airborne magnetometers also eliminates the necessity for and problems sometimes associated with getting to the site.

Seismic Surveys

While earth scientists can obtain valuable regional information about subsurface conditions using gravimeters and magnetometers, the principal detailing tool used in the preliminary search for petroleum traps is the seismograph. Most people are familiar with its use to measure earthquakes. But few people remember its use during World War I to locate German heavy artillery.

In petroleum exploration, reflection seismic surveying is the method used. The seismograph records variations in the way rocks reflect sound waves sent downward from a surface source. The reflected sound waves vary with the type, depth, density and dip of the rocks encountered. The returning sound waves made from a series of points along the survey path can then be displayed graphically to form a seismic record for intepretation by earth scientists.

Computers have added an exciting, new dimension to geophysical data interpretation.

The sound waves used in seismology may be generated from a number of sources, as will be shown later. The sound waves are picked up at the surface by vibration-sensitive devices—called "geophones" in onshore use and "hydrophones" in offshore surveys. These devices transform the sound waves into electrical signals which are transmitted by long cables to the recording equipment. The seismic data are then recorded on magnetic tape for transporting to a computer center. There, highly sophisticated mathematical processes are applied to the data to produce a graphic display of the geological structures far below the survey site.

Seismology, like so much of the advanced technology associated with geophysical work, is in a dynamic state of change. New technology, much of it associated with the evolving application of computers, is revolutionizing geophysics as it is known—and applied—today. Indeed, many of the tools that earth scientists will need to probe deeper into the earth for petroleum information in the coming decade are yet to be developed. But the innovative work continues.

Computers and the Search for Oil and Gas

The magnetic, gravity and seismic surveys are the basic tools used during the early stages in the search for potential oil and gas traps, but they are not the only tools.

The advent of the computer and its application to petroleum exploration is undoubtedly the most significant scientific advancement since use of the seismograph began. Data gathering using digital computers has taken a quantum leap forward—and continues to improve as new applications for computer technology emerge.

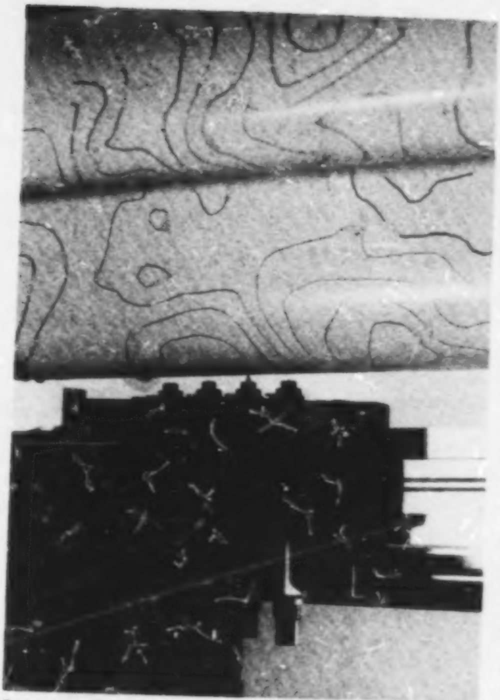
Prior to 1960, analog computers measured the voltage changes received from the seismic geophones and reproduced them in graphic form directly on a paper tape. All adjustments to eliminate distortions and "misinformation" recorded on the tape had to be removed by hand before the data could be accurately analyzed. With the advent of the digital computer in the mid-1960s, the computer itself could be programmed to remove many of the distortions and refine the data in a matter of seconds—rather than days.

The introduction of fiberoptics into seismic surveying enabled the number of recording channels to be increased from 96 to more than 1,000. The new generation of computers enabled the petroleum scientist to access that information, to remove background signals and other interferences and to produce the results in usable form. One of those forms is three-dimensional (3-D) seismic surveying.

Three-dimensional seismology provides a volume of data from two horizontal dimensions and one vertical dimension. Conventional 2-D seismology provides data from one vertical and one horizontal dimension.

Three-dimensional surveying improves the resolution of the signal received from underground strata, usually by recording many closely spaced parallel lines of seismic data (rather than the conventional "single-line" acquisition most frequently used in two-dimensional surveying). But 3-D technology can be used for more than simply sampling the subsurface with denser coverage.

It also provides a more detailed picture of the underground strata. Indeed, the importance of 3-D seismology is not



Contour maps can now be computer-generated, saving hours of detailed handwork.

only in the speed and accuracy available, but also in perspective views that such technology makes possible.

Imagine being able to remove a three-dimensional section of the earth's crust thousands of feet deep, lift that section to the surface, turn it around to view it from any angle or dissect it horizontally or vertically at any point on the section! That, basically, is what 3-D seismic acquisition and processing is about. And it's all done by computers!

Advances in digital computers and their application in petroleum exploration have led to efforts to identify subtleties in reflections that could indicate the presence of oil or gas. One innovative and developing method of seismic interpretation is "bright spot" technology. Hydrocarbon-saturated areas within rocks—especially those containing natural gas—have different reflective properties than do water-saturated areas within those same rocks. This variation results in a change in the character and amplitude of the reflected sound waves and may appear as a direct hydrocarbon indication (a so-called "bright spot") on the seismic profile, suggesting the presence of oil or gas.

Greatly improved seismic data displays and data base management are also now possible through computer technology. Not only can color be added to help identify the various strata shown on a seismic display, petroleum scientists no longer have to painstakingly develop contour maps by hand. Indeed, today's computer-based seismology seems to present an almost unlimited opportunity for innovation and advancement in seismic technology.

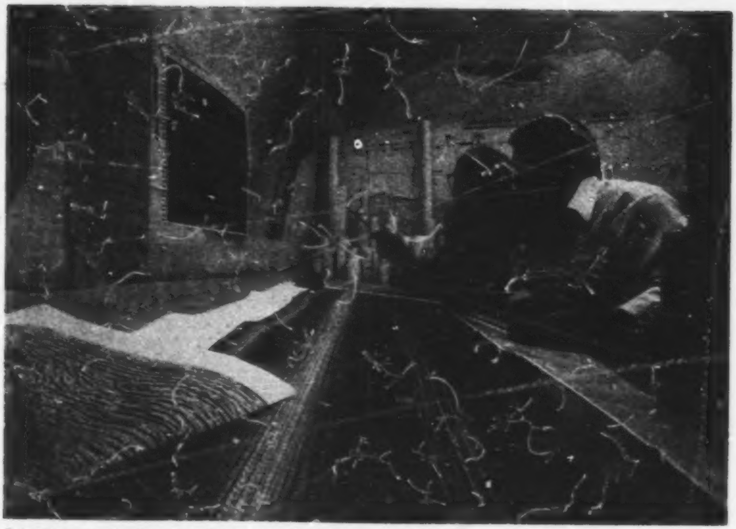
Other Exploration Tools

Remote sensing devices aboard aircraft and space satellites are now playing a supplemental role in the search. Data from the equipment are fed into special computers and put into more usable form to reveal ground water, mineral deposits, faults, anticlines and other geologic phenomena not visible to the naked eye.

Another tool used in the search is the geochemical sampler or "sniffer." Sensitive to the presence of hydrocarbons at or near the surface, this device senses trace amounts of oil and gas. In offshore operations, these instruments can be towed by the seismic vessel as it moves through the water. A cable containing electrical wiring connects the sniffer with an onboard terminal, where indications of hydrocarbons can be displayed.

All of the tools discussed thus far precede the actual well-drilling operation. It is the drill bit, however, that must ultimately test the underground strata and provide the first tangible and measurable proof of the existence of oil or gas in the strata far below.

Throughout the drilling process, however, logs—records—of various types are kept of the progress being made. These logs form a vital link in the data collection process, indicating the depth, type and thickness of the rock formations encountered, as well as providing indications of the presence of hydrocarbons. The logs are not only important to the assessment of the particular borehole where the drilling is taking place; they can also be compared to logs from other wells drilled in the area. Using this information, the interdisciplinary team of geologists, geophysicists and engineers can identify changes in the underground strata which may suggest the existence of nearby traps having the potential for containing oil and gas.



Color-enhanced seismic profiles aid in refining seismic interpretation.

PUTTING THE TOOLS TO WORK

Historically, landowners in prospective areas have been anxious to have seismic surveys made, since such surveys may provide information resulting in exploratory drilling and income to the mineral rights holder. However, permission for such surveys is required for all seismic work.

In some onshore federal areas, legislative bans or decisions by administrators have prevented access for seismic surveys. Even where one government agency having control over the mineral rights has leased those lands for exploration, another agency having control over the surface of those lands may refuse the permittee access.

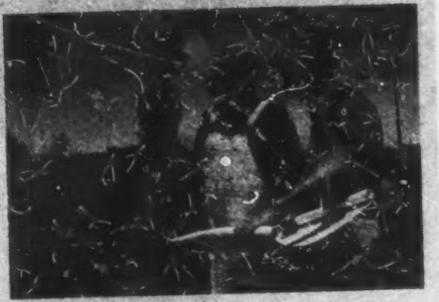
Seismic surveying has only a temporary and minimal impact on the area being surveyed, but such surveys are critical to the successful search for oil and gas. Unless surveys are permitted, the United States cannot know—before a crisis occurs—where the oil and gas deposits it will need lie under federal lands. Waiting until the crisis hits may make it impossible to locate and produce that petroleum in time to lessen the impact of the crisis.

It is important to the nation—and to the petroleum industry—that federal lands be leased on a timely basis. And, considering the environmental precautions taken by the petroleum and geophysical industries during seismic work, onshore and offshore, there should be little reason for concern by landowners, private or public. That emphasis and care begins with the design of the seismic program.

Designing a Seismic Survey Program

It is estimated that nearly 95 percent of the monies allocated to geophysical work in petroleum exploration is spent on seismic surveys. It is essential, therefore, that such surveys be carefully planned.

Such a survey begins when an oil company, a seismic surveying company, an individual or a government agency determines that an area should be investigated for its oil and gas potential. A program is then developed indicating where the survey is to be made, the type of survey to be conducted and the type of data to be collected. Terrain, environmental concerns, economics, legal considerations



A landman explains a seismic program.

THE SIX STEPS IN ONSHORE SEISMIC SURVEYING

There are six points at which a seismic operation may come in contact with the owner of the surface rights of a tract to be surveyed in an onshore area.

- **Obtaining permission:** A representative of the seismic company—the permit man—seeks permission from the landowner to conduct the survey, whether the land is publicly or privately held. The permit man or woman often provides information about the area to the survey crew, as well as information to the landowner and residents nearby concerning the proposed activities.
- **Surface studies:** Geologists, geophysicists or petroleum engineers may visit the site and ask permission to examine surface rocks. Their job is to identify the rock types and their age and thicknesses for clues that will help later on, when the seismic data are analyzed and interpreted.
- **Starting the survey:** The survey crew is next on the scene. Their job is to establish the route of the seismic line for the survey. The crew measures surface elevations and specifies where along the line the listening devices—geophones—are to be placed.
- **Placing the geophones and cables:** A crew then lays out the strings of geophones and the cables which connect them to the recording vehicle. Inside the vehicle are delicate instruments which amplify and record the electrical impulses received from the geophones, for later interpretation.
- **Creating the acoustics:** The seismic crew then brings in the equipment that will be used to generate the sound waves that will be picked up by the geophones. The type of equipment used will depend on the data to be collected, type of terrain, surface and underground strata expected to be encountered, nearby environment and a number of other factors. In the U.S., this generally means the use of controlled explosives or vibrating machines.
- **Cleanup operations:** Once seismic operations are complete, a cleanup crew is assigned to remove debris from the seismic line to assure that no telltale scars will remain. Their job is to be sure that the surface owner and his neighbors will keep a favorable impression of the seismic operation.

and technical factors all have a role in determining the "best" energy source to be used—the one that will yield the highest quality data under the prevailing circumstances.

The program itself is planned as a series of lines drawn on a map to guide the survey crew. It may be very precise and detailed or a more general survey to profile the existence of an underground structure suggested by gravity or magnetic data, or found by surface investigation or by examining the record from a nearby well.

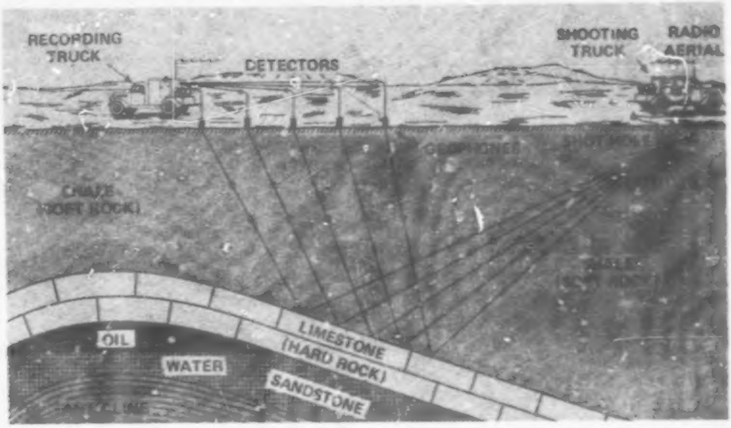
Satellite and high technology navigation aids are used in some onshore and offshore areas, where surface access is not readily available.

Onshore Surveys

Aerial photographs, pipeline locations, land-use maps and other planning aids may indicate that the survey should be conducted on roads, off roads or around towns and lakes. Ridges, valleys or rivers must be taken into account. But, no matter how careful the program planning, there's a good chance that it will have to be modified to overcome unexpected obstacles or to obtain detailed data based on an ongoing assessment of the information being collected in the survey.

The seismic crew normally consists of about two dozen people and a half dozen trucks and other vehicles. In jungle areas, it may require several hundred crew members to cut a path through the underbrush and to hand-carry tools and supplies. In remote and frontier areas, these crews must be self-sustaining. Living quarters, food, water, waste facilities and seismic survey equipment must be brought to the site, creating a substantial logistics challenge. Often, the company requesting the survey will have one or more representatives on site to monitor progress.

Once at the site, the survey crews lay out the path of the survey . . . a relatively easy task in open, flat lands, but a complex problem in mountainous terrain or in swampy areas. The initial surveying is similar to that done in general construction. The survey crew uses transits to sight along the line and places markers for the shot-point and geophone crews to follow.


RECORDING TRUCK
DETECTORS
SHOOTING TRUCK
RADIO AERIAL
GEOPHONES
SHOT HOLE
CHALK (SOFT ROCK)
SHALE (SOFT ROCK)
LIMESTONE (HARD ROCK)
OIL
WATER
SANDSTONE
ANTICLINE

An onshore seismic field operation is shown in this schematic of reflection seismology.

The Sources of Energy Generation

The source of the sound waves used in the survey will be determined by the target depth, terrain, closeness of surface structures and environmental concerns, and by restrictions placed on the operations by the landowner and the type of data to be gathered. There are four sources of energy used in seismic surveying onshore: controlled explosives, vibrators, weight dropping (where heavy weights are dropped on the surface to create acoustic energy) and compressed gases (producing bursts of energy using compressed air or propane). However, controlled explosions and vibrators are the two most commonly used sources of energy in onshore petroleum seismology today:

- **Use of controlled explosives.** One of the benefits of using high energy sources—such as explosives—in seismic surveying is that one shot usually produces sufficient energy to obtain a usable seismic recording. (There may be times, of course, when the collection of special data on subsurface features may require several simultaneous explosions.) Usually, the charge is placed in a shallow "shot hole" a few inches in diameter drilled in the ground by a truck-mounted drill

Crewmen drill a shot hole using a portable drill.

A field crew places carefully measured aboveground charges for a seismic survey in an environmentally sensitive area.

rig, similar to—but smaller than—the type used to drill a conventional water well. In inaccessible areas, or where the type of soil dictates, a portable, hand-operated drill may be used. The charges are lowered into the hole, attached to an electric blasting cap and readied for firing by the recording crew. In certain isolated and environmentally sensitive areas, explosives may be mounted aboveground on stakes, so as to lessen disturbance of the ground surface. Explosive cord may also be used. This cord is preloaded with measured charges which are simultaneously fired to produce the sound waves needed for the seismic recording. Explosive cord is particularly useful in shallow-depth surveying. It may also be used in marshy and shallow-water areas, where other methods cannot be employed.

- **Vibrators**. Vibrators are a commonly used energy source in seismic surveys. They produce energy by vibrating a heavy plate pressed against the ground. Used singly or in groups—and simultaneously vibrated—each pad can exert more than 30,000 pounds of energy creating a frequency sweep (something like radar) to send a brief acoustic signal into the ground. The reflection of this controlled signal produces a record from which a seismic "picture" of the substrata can be developed. Vibrators, riding on tires or tracks, cause very little disturbance of the surrounding area and are often used in environmentally sensitive locations, in cities and along highways, where other methods would be less acceptable.

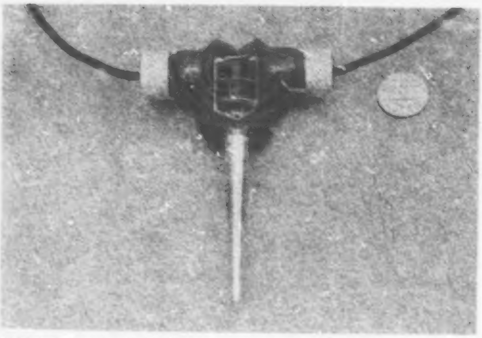
A recording vehicle housing seismic equipment is shown on location in Wyoming's Great Divide Basin.

Recording the Returning Signal

Once the area is ready to "shoot," the seismic crew places geophones and cables along the line of the profile to be recorded. The cables are connected to seismic recording equipment contained in a truck or portable cab, often referred to as the "doghouse." Geophones most commonly used today consist of a rugged case containing a permanent magnet, a wire coil and a spring. Wires lead from the geophone to other geophones in the group and to the doghouse. The difference in movement between the coil and the magnet created by the reflected signal generates an electric current, which is recorded on magnetic tape and as a series of lines on the seismic display in the doghouse.

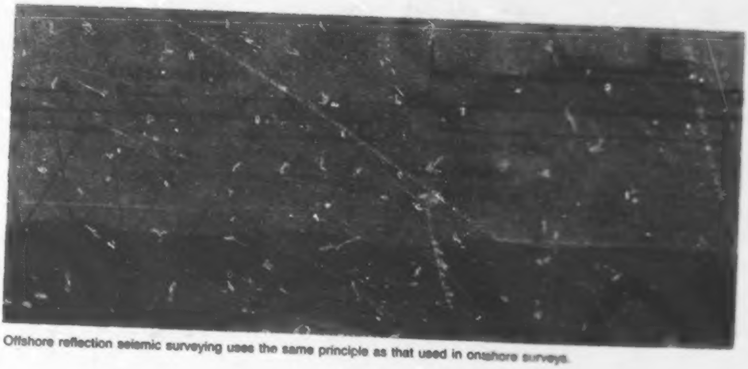
The geophone field crew lays out (and later retrieves) the cable that contains enough wires so that two are available for each geophone group connected to that cable. There are usually 24, 48 or 96 geophone groups per cable, with each group containing a dozen or more geophones. The cables themselves are as much as two miles long, with the length governed by the terrain and the survey program. The introduction of fiberoptics now allows the number of geophones to be increased to a thousand or more, providing a wealth of details for the earth scientists to analyze.

Usually, the geophone groups are placed from 110 to 330 feet apart. The data received come from the mid-point



The internal works of a geophone

A puff of dust rising from a vibrating plate indicates that a seismic "shoot" is in progress.



Offshore reflection seismic surveying uses the same principle as that used in onshore surveys.

between the source of energy (the "shot point") and the geophone group. The data can be improved by "stacking," that is, collecting additional data from other geophone groups placed so that they are farther away from the energy source but share a common mid-point with the other recorded data.

Once a record has been made of the returning signal, the geophones and cables are moved to the next point along the seismic survey line where a record is to be made. This procedure is repeated until the survey is complete, although information gathered during the survey may require changes in the original program to ensure a successful survey.

In extremely rough terrain, the geophone array may not be connected by cable to the doghouse. Rather, the data are sent by radio from the geophones to the recording equipment.

Offshore Surveys

Seismic surveying has also been extensively adapted to the offshore environment. Modern seismic vessels are designed specifically for surveying, as is the equipment to interpret and refine the data received. But, instead of using the same equipment that is used onshore, such as "surface shaking" machines and geophones, seismic crews offshore generally use chambers containing compressed gases or fluids to generate the acoustic signals and hydrophones to pick up the returning sounds.

Use of these chambers is environmentally harmless. These confined "explosions" leave only air bubbles and a muffled thumping sound to attest to their presence and use. The chambers are trailed in the water behind the vessel as it plies along a predetermined survey line. The crews activate the chambers

Technicians monitor a survey's progress aboard a modern seismic vessel.

Streamer cable containing hydrophones.

at set intervals, from onboard controls connected by cables to the energy source. Other cables contain arrays of hydrophones, which receive the sounds created by the explosions, as they echo off the underlying strata beneath the sea, and transmit that information to the onboard seismograph and computers.

Prior to and throughout the survey, great care is taken to alert fishing or other vessels in the area to the presence of the survey vessel and its course. Sophisticated collision avoidance equipment is standard aboard modern seismic vessels. The vessels are kept on course through use of radar, loran and satellite navigational equipment.

Other instruments keep track of the hydrophone cable—the "streamer"—which may extend for nearly two miles behind the vessel. In sensitive fishing areas, marine biologists may accompany the seismic crews to monitor operations.

Multiple Seismic Surveys

The more geologic and geophysical data available, the greater the chance of correctly deciding whether or not to drill in a prospective area. For competitive reasons and because of its proprietary nature, seismic data acquired by one company are not usually shared with companies not participating in or purchasing the rights to the survey.

This is one reason why a cluster of seismic crews, working for separate geophysical companies or for different oil companies, are frequently found in the same area at the same time. Moreover, as new information or technology is developed, a resurvey may be made. Some geologic prospects are such that they may motivate several companies to conduct separate seismic surveys at the same time.

These multiple surveys benefit both the mineral rights owner and the company or companies contracting for the survey, especially in areas where the petroleum reservoirs are small or difficult to locate. There are many examples—onshore and offshore—where one company has succeeded in finding oil and gas overlooked in an earlier survey. Even within the same company, the interpretation of old data or the acquisition of new may lead one geologist, geophysicist or engineer to see indications of a potential trap which another earth scientist did not identify.

A seismic vessel moves through the waters of the Gulf of Mexico.

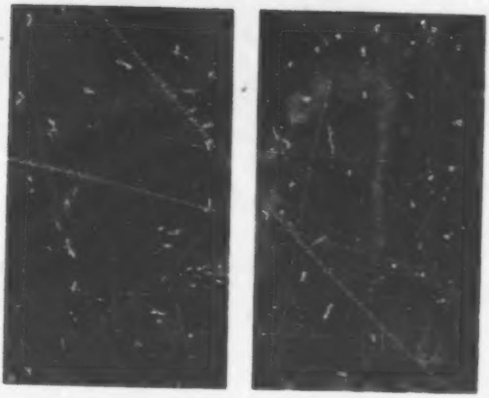
Processing Seismic Data

The raw data gathered from seismic surveys both onshore and offshore must be processed to compensate for and remove a variety of distortions and to create the clearest "picture" possible of the underlying strata.

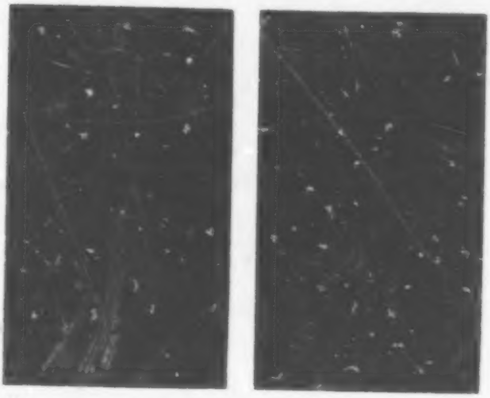
These distortions (or "noise") can be created by a number of factors, including:

- Weathering, the disintegration of the soil and rocks near the surface through which the seismic energy must pass;
- Noises from sources other than those generated by the survey's energy source;
- The normal time delays ("moveout") of the reflections caused by different distances between the energy source and the receivers;
- The echoing effect as the sounds bouncing off the top of a subterranean strata rebound off an overlaying layer before returning to the surface (or reflecting off the top and bottom of the water layer in offshore surveys); and
- Bubbles from the air chamber discharges during offshore surveys, which interfere with the recording of subsequent energy discharges.

Distortions such as these formerly had to be painstakingly removed by hand by the petroleum scientist interpreting the seismic data. With the advent of the computer, much of the distortion problem is handled in a fraction of the time formerly required. Unwanted noises recorded during the survey are filtered out and the tapes are reprocessed and refined. Paper printouts of the seismic data are shown to the client for comments before a final tape is made of the seismic "sec-



This photographic series shows a three-dimensional computer display of a salt dome far underground. Upper left: A vertical north-south "slice" of the salt dome (the dark area in the center). Upper right: A horizontal cross-section at the 6,500-foot depth running east-west (the salt dome is the dark, circular area at center right). Lower left: A horizontal slice at 13,000 feet, with possible oil and gas shows—bright spots—appearing as the light blue and yellow triangular area upsweeping from the lower left. Lower right: A vertical east-west cross-section of the salt dome, with bright spots upsweeping from the lower left.



tion"—the composite of information gathered in the shooting process. Color can now be added to the seismic profile, a cross-section of the underground formations, to better delineate the various strata and structures.

Developing Maps and Models

Using the assembled data, earth scientists develop maps describing the subsurface strata and structures which may be encountered during drilling. Contour maps and cross-sections are designed to show the relative position and depth of the underground strata and to provide a three-dimensional picture of the area. A conceptual model may then be constructed combining much of the material incorporated in the individual maps and indicating the most promising locations to drill. Exploration geologists, engineers and geophysicists use these models to judge the size and shape of the formations, to identify stratigraphic traps, synclines, anticlines and faults, and to estimate the probability and size of potential oil or gas traps. They are also used to determine the target depth and the best location for an exploratory well. These criteria are intended to assess whether it will be economically justifiable to drill the prospect.

An important role of the petroleum scientist is not only to study, quantify and review these data but, also, to present a report of the areas with potential to company management in a persuasive and convincing manner for inclusion in the company's leasing and drilling program.

In order to further explore the area by drilling a well, the operator must first obtain a lease from the holder of the mineral rights. The procedures used for obtaining such leases vary widely, depending—among other things—on whether the mineral rights are held by a private or government owner. Use of the surface must also be considered and conducted in an environmentally acceptable manner.

Once those rights have been obtained . . . and any stipulations of the lease complied with . . . drilling can be started. It is at this point that the data interpretation of the petroleum scientist will be truly tested, as the drill bit works its way down to the target area.

A diver inspects an acoustic chamber used to generate the energy source for offshore seismic surveying

EXPLORATION AND THE ENVIRONMENT

The environmental impact of onshore and offshore petroleum exploratory operations is a matter of concern to the public, government and the industry. Geophysical operations are temporary, with crews staying only as long as necessary to acquire the data. However, few if any of man's activities can be conducted without some impact—no matter how small—on the environment we all share. This is equally true of the search for oil and gas.

Nevertheless, the long history of petroleum exploration in the United States records dramatic improvements in environmental protection from the early days of the industry. As noted earlier, little was known about petroleum geology in the mid-1860s, when exploration for crude oil began in earnest. Nor was public or industry consciousness tuned to the potential damage that could result from not exercising care in looking for and producing petroleum.

The impressions of the failures of those early prospecting days live on, despite the technological advancements that have been made. The vision of the "gusher"—the uncontrolled flow of oil from a well—has become a stereotype picture in the minds of many Americans. Yet gushers are a thing of the past . . . brought to an end by a combination of sincere concern for the environment and by the economics of conserving, not wasting, the product of industry labors.

Today, petroleum exploration is conducted under a wide variety of environmental and geological conditions. The ecosystems range from frozen arctic subsoils to subtropical forests and marshlands and from lush mountain meadows to vast desert areas.

These environments differ greatly in climate, geology, topography and surface and ground waters. There are mountains, canyons, buttes, arid lands and rivers, lakes, streams and oceans to be explored or crossed or bypassed. And the environment of any given area can change dramatically in the matter of a short distance.

Yet most of the activities associated with oil and gas exploration are well-known, predictable and controllable. They are also site-specific and frequently call for tailor-made operational and environmental protection measures to ensure that the impacts will be insignificant.

Onshore Operations

The direct environmental disturbance created during onshore seismic survey operations ranges from minimal to imperceptible. Vehicles must be adapted to the survey site and, wherever possible, keep to previously constructed roads. In areas of particular environmental sensitivity, equipment can be brought in—and out—by helicopter or

A geophone array laid out for a seismic survey. The geophone is the orange disc at center; the black "tube" is a connector.

transported by men, pack animals or vehicles specifically designed to minimize the pressure exerted on the surface.

The use of explosives during seismic operations has also been shown to have only temporary effects on the environment. While there is some localized ground disturbance near shot holes, vegetation usually recovers within a single growing season.

Where suspended charges are used in place of shot holes, little damage is noticeable to the vegetation. After one growing season, it is frequently difficult to spot where seismic shot points were placed. Studies have shown that wildlife soon become accustomed to the sounds.

Special equipment is required for seismic surveys in marshlands to minimize the environmental impact.

On government lands, strict environmental regulations and lease stipulations are in place—and adhered to—to minimize the effects of exploratory operations on the ecosystem. Operations are timed to minimize disturbance of animals, such as elk, caribou, mountain sheep, grizzly bears and black-footed ferrets. Nesting areas of protected species, such as the bald eagle and peregrine falcon, are avoided and special precautions are taken so as not to disturb fish at spawning.

In arctic, marshy and desert areas, additional precautions are taken to protect the sensitive environment. Specially designed, lightweight portable equipment is used, so that the total area affected by the survey operations is usually small and the effect on wildlife and their habitat is negligible.

Offshore Operations

During the history of the offshore search for petroleum in U.S. waters, there has never been a significant amount of oil spilled during exploratory activities, and particularly during seismic operations. This has been confirmed in studies by government, academia and industry which have shown that acoustics used in offshore surveys do not significantly affect marine mammals and fish.

There are many federal restrictions in place to protect sea life in areas where exploratory activities are taking place. For example, seasonal restrictions are placed on arctic offshore operations where they might interrupt the subsistence hunting of Alaskan natives or interfere with the migration of endangered species of whale.

Post-Geophysical Operations

Concern for the environment does not end with the completion of geophysical activities. It continues throughout exploratory drilling, development and production operations. Many of the same regulations that safeguard the environment during the geophysical data acquisition process continue in place throughout the life of petroleum operations. Other regulations and industry standards are in force to meet conditions peculiar to the drilling and production stages.

A surveyor plots an onshore survey line.

As a result, the environmental impact of these operations is minimal. Indeed, there are many examples of the environmental compatibility of such activities, onshore and offshore, whether it is on Avery Island, Louisiana, where oil and gas operations are conducted within a bird sanctuary, or in the multiple safety valves and blow-out prevention equipment that are integral parts of the drilling and production process.

Perhaps, nowhere is the care taken to protect both the environment and the wildlife that shares it more evident than in Alaska. In the frozen environment of Alaska's North Slope, the petroleum industry found and developed the nation's largest oil field. And it constructed an 800-mile pipeline to bring that oil to new shipping facilities at an ice-free southern Alaska port.

The construction of these facilities set many new standards for environmental protection. These included pre-surveying of the area to identify the wildlife and its habitat to ensure that the impact of the construction would be minimal. Gravel pads, five or more feet thick, were placed where roads, the pipeline, drilling and production equipment and buildings were to be placed to protect the surface from thawing. Where the pipeline had to be placed in the permanently frozen soil, refrigerant lines were buried to keep the ground frozen. Aboveground sections of the pipeline were heavily insulated to minimize the effect of the heat from the oil moving through the line on the environment below.

Special precautions were taken at the more than 800 river and stream crossings to protect fish spawning beds; while pipeline construction was timed to avoid calving areas. In some instances, the construction route was altered to avoid nesting areas of endangered or threatened species. In other areas, the pipeline was raised higher aboveground or buried underground to allow caribou to pass through on migration.

The same sense of environmental concern prevails throughout modern-day petroleum operations. It is this continued concern that minimizes the impact of exploration and production activities, onshore and offshore.

Right: Using a truck-mounted drill, a seismic crew prepares for a shallow-depth "shoot."

CONCLUSION

Hydrocarbons found through petroleum exploration in the United States have resulted in substantial benefits to the American people. Advancements in exploration technology have greatly increased the oil industry's ability to locate—in an environmentally safe manner—much of the oil and gas this nation will require in the years immediately ahead.

Modern geophysics—particularly as applied in petroleum exploration—is a sophisticated science. Its use in the search for oil and gas directly benefits this nation. It employs the most advanced technology and continues to refine and improve its application.

The multidisciplinary teams of earth scientists engaged in programming and carrying out seismic and other surveys and in interpreting data obtained from surface and subsurface features work at the leading edge of technology—rivaled only by the federal government in its use of computer science and its computer power.

Environmental consciousness is an integral part of their work and of the field crews that help develop the data necessary for a successful search for oil and gas.

The national interest suggests that petroleum geologists, geophysicists and engineers be allowed to get on with that search. The technology is in place. The manpower is available. The equipment stands ready to be used.

What has been lacking in the American energy equation, and lacking to a large degree, is the opportunity to explore large sections of the United States—onshore and offshore—held by the federal government. If these impediments to exploration are removed for economic and national security reasons and these areas are opened to the production of the crude oil and natural gas that is found, then the dangerous dependency of the United States on foreign oil supplies can be significantly reduced. Certainly, the continuing threat of interruptions in the flow of world oil—including portions of the oil this nation imports daily—argues in favor of such exploration . . . before the threat becomes reality.

For further information on petroleum geophysics consult:

Sheriff, Robert E., *A First Course in Geophysical Exploration and Interpretation*, International Human Resources Development Corporation, Boston, 1978.

Chapman, R. E., *Petroleum Geology*, Elsevier, New York, 1983.

Bates, Charles C., et al, *Geophysics in the Affairs of Man*, Pergamon Press, Elmsford, New York, 1982.

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STATE OF CALIFORNIA
STATE LANDS COMMISSION
KENNETH CORY, *Controller*
LEO T. McCARTHY, *Lieutenant Governor*
JESSE R. HUFF, *Director of Finance*

GEORGE DEUKMEJIAN, *Governor*
EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814
CLAIRE T. DEDRICK
Executive Officer

November 19, 1984

NOTICE

The State Lands Commission will consider the attached matter(s) in an area of interest to you at its meeting scheduled for:

Thursday - November 29, 1984

at 10:00 a.m.

State Capitol, Room 447

Sacramento, California

CLAIRE T. DEDRICK
Executive Officer

Attachment

CALENDAR ITEM

A	2,9,12,15,16,17,28,29,33,35,36,43,44,45 51,52,57,58,69,70,74,77,79	11/29/84 W 6005 Faber
S	3,5,11,13,14,17,18,22,27,36,37,38,39,40	Calliga

Geophysical Survey Permit Study Program

INTRODUCTION

During the early 1970's and continuing to the present, scientists evaluated the effects of oil exploration and new geophysical research technology (compressed air) on fish and their eggs, crustaceans, and marine mammals. Recognizing the importance of environmentally sound resource management, the Commission encouraged the Minerals Management Service (MMS) to include geophysical operations in their 1983 Bolt, et al. study of the California Gray Whale and Sea Otter.

At its May 24, 1984 meeting the Commission instructed staff to report within six months on current and suggested research regarding the effects of geophysical testing. They also asked staff to work with the Department of Fish and Game (DFG) to identify peak fishing seasons by utilizing catch data.

STUDIES

Staff of the Commission convened three meetings of a "Geophysical Studies Group," one each in Long Beach, Sacramento, and Santa Barbara. Invited were representatives of the petroleum industry, the fishing industry, environmental groups, DFG, MMS, National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS) and the Lieutenant Governor's Office. Some members of the group were also members of the Fish Dispersal Steering Committee (geophysical operators, commercial fishermen, MMS, DFG, SLC and NMFS), established by the fishing and oil industries' Joint Committee of Santa Barbara.

A representative of environmental groups who expressed interest at the May 24, 1984 Lands Commission meeting attended the first meeting but not subsequent ones. Phone contact was difficult requiring staff to make additional requests in writing. Even so, limited response occurred.

Fishermen, although invited, did not attend the geophyscial studies meetings. They indicated time to attend both the Steering Committee and the Geophysical Studies Group was not available.

SUMMARY

As a result of study meetings and independent staff research, a number of existing and planned investigations on the effects of geophysical testing were identified. It was the consensus of the group that the current course of study was appropriate and could profitably be supplemented by the new or additional research described below. They agreed that future studies may be required based on findings of current and planned research. A status review of the current investigations in the areas of fish dispersal, effects on fish eggs and larvae, fish catch data retrieval, and effects on marine mammals follows.

FISH DISPERSAL

The Steering Committee contracted for a pilot field study: "Possible Effects of Seismic Acoustic Signals on Commercially Viable Rockfish Sites". The field work is to be conducted between September 24 and November 15, 1984. The geophysical industry will provide approximately $35,000 for the study, Atlantic Richfield Company has committed $150,000 of geophysical ship time, and the commercial fishermen will furnish five fishing vessels. The final report should be available by the end of December 1984. MMS identified several hundred thousand dollars or more in Fiscal Year 85 for two studies: "Effects of Seismic Operations on Fish", and "California OCS Fisheries Database". The first study will provide a concise, detailed synthesis and analysis of existing information. The reports resulting from this study will include: 1)the population and ecology of the fish associated with California offshore oil and gas rigs and platforms;

2)habitats and migratory patterns of important Central and Northern California migratory fish; and 3)summary and analysis of California trawl fisheries data. The second study will determine: 1)the effect; if any, of seismic operations on fish dispersal; 2)the short-and-long term effects; if any, of seismic operations on fish of various age classes (larval, juvenile, subadult). The results of the Steering Committee's pilot field study will be coordinated with MMS to prevent duplication of effort.

EFFECTS ON JUVENILE FISH

The American Petroleum Institute (API) commited $70,000 to fund a pilot field study in January 1985: "Effects of Seismic Energy Releases on Fish Eggs, Fish Larvae and Plankton". ARCO is providing additonal support through scientific personnel and equipment. The study will evaluate effects of seismic energy pulses on fish embryology, fish egg hatching success and incidence of abnormalities in hatched fish larvae as a function of distance and energy level. API is represented on the Steering Committee. Results of the API study will be monitored to prevent duplication of effort in the studies undertaken by that committee and the Minerals Management Service.

The Fish Dispersal Steering Committee broadened its evaluation to follow up on the eggs and larvae question. They will decide on the types of research necessary to determine the effects of seismic exploration on fish eggs and larvae. If an effect is identified they will examine relationships between impacts to juveniles and consequential effects to adult populations.

The commercial fishing industry has requested that the Commission seek funding from the Legislature for additional studies on the effects of geophysical operations to larval stages of fish. SLC staff submitted a Budget Change Proposal for Fiscal Year 85-86 to help fund any recommended studies.

DEPARTMENT OF FISH AND GAME COMMERCIAL FISHERIES CATCH DATA

The Department of Fish and Game collects and maintains fish catch records. These data, if accurate and precise, could be used to identify peak fishing areas and seasons. This information would also be useful to geophysical operators when planning future surveys. Staff met extensively with DFG personnel and analyzed the type of fish data available, their precision and accuracy. DFG determined that their data were not readily accessible. They will lease/purchase a computer to gather all the commercial fisheries data in one database, and are exploring funding sources to get the available raw fisheries data onto the new computer. As a short term solution they will develop a memorandum of understanding with the Northwest and Alaska Fisheries Center of NMFS to put the commercial fisheries data on the existing NMFS database. This powerful database is already set up to provide the type of information concerned parties are looking for.

MARINE MAMMALS

NMFS is monitoring gray whales and has a longterm database. The whales appear to be reaching pre-commercial exploitation levels with a net annual population increase of about 2%. NMFS found continuing growth to be a significant indicator of species health. The study by Bolt et al "Investigation of the Potential Effects of Underwater Noise from Petroleum Industry Activities on Migrating Gray Whales", commissioned by MMS, was extended for a second year and includes humpback whales. Final reports will be available in January 1985. MMS may undertake a study in Fiscal Year 86 on the effects of OCS activities to marine mammals that will address "cumulative effects".

The Environmental Coalition was represented at the first Studies Group meeting. The cumulative impact of seismic testing on marine mammals was discussed in conjunction with the wide variety of other activities occurring on the OCS. The Coalition subsequently agreed that on-going research regarding the gray whales is appropriate at this time and is congruent with the type of research they would suggest. They indicate that they may have other comments after review of final reports. Additional suggestions may be offered after that review.

On the issue of the sea otter, a concensus was reached with U.S. Fish and Wildlife Service personnel and Friends of the Sea Otter that further studies on the effects of geophysical research on sea otters are not warranted at this time. To maximize the amount of ongoing information for all parties the Commission staff have proposed to notify the DFG or the USFWS to see if an observer is available to be put on board when acoustic geophysical exploration is conducted within 1/2 mile of shore between Ano Nuevo and Point Sal. Staff will also contact Friends of the Sea Otter at that time so that their help can be enlisted.

CONCLUSION

Commission staff will continue to monitor these research projects through their participation on the Steering Committee and management of the geophysical program. In addition all interested parties have been asked to continue providing regular input and participation on proposed research.

MEMORANDUM OF UNDERSTANDING AND SUPPORT

We the undersigned representatives of the fishing and geophysical industries have endorsed the formation of a Fish Dispersal Steering Committee and jointly support the efforts of that Committee to determine the feasibility of designing a research study to evaluate the effects of seismic survey acoustic signals on the dispersal of commercially valuable fish by convening an independent scientific expert panel.

Background

Several central California commercial fishermen and and geophysical vessel operators have reported conflicts between their two industries in federal and state waters. Those reported conflicts can be classified into two general categories: space-use conflicts AND effects on the fishing resource. Space-use conflicts arise when vessels are hindered in their ability to navigate or when fishing and seismic gear are damaged as a result of geophysical vessels operating in active fishing areas. This category of conflicts has been addressed by federal and state geophysical permit processes which require geophysical survey operators to notify commercial fishermen and other marine resource entities in advance of conducting seismic surveys. This encourages geophysical survey operators and fishermen to work together to avoid at-sea conflict.

Fisheries effects conflicts are inherently more complex to analyze, define and therefore to resolve. Some fishermen believe that seismic energy soucrces adversely affect the fisheries by causing fish to disperse and by physically harming the egg, larval or juvenile stages of commercial species of fish and shellfish. Whether these concerns are founded on real or imagined perceptions of the environmental factors involved has yet to be determined.

THE FISHING/GEOPHYSICAL INDUSTRIES STEERING COMMITTEE

A fishing /Seismic industry committee (Fish Dispersal Steering Committee) was formed in late October, 1983 to address the conflicts in the category"fish effects". It is a negotiating committee formed in the spirit of community engendered by simultaneous negotiations on space-use conflicts. The principal parties are a representative of the fishing industry and a representative of the seismic industry. Integral to their purpose and success is the participation by representatives of key organizations and agencies that are influential in the execution of actions that may result from the Committee's efforts. These [illegible] include the Minerals Management Service and National Marine Fisheries Service of the U.S. Government the State of California Fish and Game Department, State Lands Commission and the California Sea Grant Area Marine Advisor

The Steering Committee resolved to address first the concerns about fish dispersal and decided to seek the aid of scientists with expertise on the topic.

SCIENTIFIC ADVISORY PANEL AND FORUM

The Steering Committee has accordingly compiled a list of mutually acceptable technical experts in the fields of fish behavior, acoustics and research design who will be asked to generate a research instrument to study the effects of seismic percussion on fish dispersal. The experts shall take testimony from the scientific community, relevant agencies and industry spokesmen. Then they shall prepare their own recommendations on whether a study can be performed and if so, what is a practical methodology for conducting a fish dispersal study that will 1. identify the real problems and 2) determine how they can be feasibly solved.

RESOLVED:

We believe conflicts with mutually agreed upon solutions worked out between the principle parties with counsel from outside agencies and interested parties will have a better chance of success than do unilateral actions. Thus, we support the effort described above and have secured the support from our respective industries for this project.

Signed:

Larry G. Bowles

Representative of the IAGC

Representative of the commercial fishermen

Agreement of the Seismic Steering Committee
8-23-84

Representatives of the commercial fishing industry and oil/seismic industries have agreed to commission a pilot field study on the possible effects of seismic acoustic signals on commercially viable rockfish sites as a first step to assess potential effects of seismic acoustic signals on commercial fisheries. That pilot study is designed to test the feasibility of techniques and to objectively measure and monitor gross behavioral responses of rockfish. Should results show a response, additional studies would be required to assess the effects, and their significance. Representatives of the Minerals Management Service, California Dept. Fish and Game, National Marine Fisheries Service and California State Lands Commission have participated with these industries on a steering committee to develop this study. All members of the Fish Dispersal/Seismic Steering Committee agree to the following:

All project outputs including the management plan, field plan, raw data, field reports and administrative final report shall be reviewed solely by members of the Steering Committee or their organizations and the scientific panel. No data or documents will be made available outside this group until after the final report is completed; however, "inhouse" use of contract documents by members of the Steering Committee shall be permissable. The final report shall be considered complete after the Steering Committee review has been made and the administrative final report has been revised accordingly, if revision is necessary (but no more than 90 days after the administrative final report is submitted to the committee.)

The management plan, field plan, raw data, field reports, administrative final report, and completed final report may be made available to any interested party by any member of the Steering committee or their organization upon completion of the final report.

In addition, a public statement of the results and conclusions of the pilot field study shall be negotiated by the Steering Committee. This statement may be released to the press upon request and included in agency newsletters.

Signed,

COMMERCIAL FISHING INDUSTRY	Larry G. Bowles GEOPHYSICAL INDUSTRY (IAGC)
Joyce Bradley CALIFORNIA STATE LANDS COMM.	John S. [illegible] CALIFORNIA DEPT. FISH AND GAME
Lynnette L. Vesco MINERALS MANAGEMENT SERVICE	James J. Slawson NATIONAL MARINE FISHERIES SERVICE

TESTIMONY OF THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS BEFORE THE SENATE NATURAL RESOURCES COMMITTEE

April 10, 1984

CONCERNING SB 1610

On behalf of the International Association of Geophysical Contractors (IAGC), whose membership of independent geophysical contractors and geophysical department of integrated oil companies conduct virtually all of the petroleum geophysical findings in the United States, we welcome this opportunity to bring good news and words of encouragement to the members of the Committee.

The good news is that the last two years of permitting geophysical activity in state waters has been an affirmation that our industry can conduct operations in an enviornmentally sound manner, that we can work out conflicts with other users of state waters, and that we can contribute significantly to the information base necessary for encouraging sound management of the petroleum resources located under state waters. We will summarily detail each of these subjects for you.

The Environment

Our industry has a long track record on this subject. We have developed technology to respond to public policy priorities concerning environmental protection (e.g. airguns as an acoustic energy source). We have participated in biological effects research programs with state and federal agencies, and are presently very actively working in cooperation with commercial fishermen in California to investigate their concerns about possible effects of geophysical exploration on disbursal of commercially important fish. We have worked with the United State Mineral Management Service and the State Lands staff on investigation of potential effects of our operations on migrating whales. All of this in spite of the fact that our activities have been shown to have no significant adverse impacts by the Minerals Management Service in their Environmental Impact Statement on the OCS Lease Sale #80 (offshore Southern California), and in their supplemental Environmental Impact Statement on the OCS Lease Sale #70 in the St. George basin off Alaska.

We feel it is important to dispel doubts and imperative that the continuing debate on this subject address factual knowledge, not just conjecture and emotion. In fact, you may recall that a special inter-agency task force in a report to the Executive Officer of the State Lands Commission on December 14, 1983 concluded that "There is no scientific evidence of harm to marine mammals or to fish" (from geophysical exploration operations). That conclusion was based not only on an examination of the literature and interviews with fisherman and other private parties, but included observations onboard geophysical vessels during operations. That report preceded the publication dates of the two environmental impact statements mentioned earlier. That report also preceded the release of two other important reports that contain conclusions that there are no adverse effects of offshore geophysical operations on California's sea otter, and that the distance to gray whales before they react to the presence of an operating geophysical vessel is much less than would occur in actual geophysical exploration, and much less than some had charged was pertinent for pretection of the whales.

Conflicts with Other Uses

The past several months have been trying ones for our industry , which has been working out ways to operate compatibly with commercial fishermen offshore California. There must necessarily be, and has been, give and take on both sides, and today we find that space/use conflicts with fishermen are the exception. The rule is that we are notifying fishermen early about our activity, they are responding in a responsible manner to those notices, and potential conflicts are avoided or mitigated to the mutual satisfaction of all parties. There is room for improved communications and we are working to do just that with fishermen and their representatives on a unique liaison committee comprised of petroleum/seismic industry representatives and fishermen representing nearly all of the fishermen from the Santa Barbara and Santa Maria basin areas (called the Joint Committee). In fact, the members of that Committee prepared a joint communique that recommended changes to geophysical exploration permit rules that will enhance the efforts of these two natural resource industries to operate compatibly.

The Joint Committee Liaison Office is making a major contribution toward solving space/use conflicts in that area. We have also entered into a cooperative effort with the fishermen to investigate the fishermen's concerns about potential for disbursal of their commercially important fisheries. There was a meeting in March jointly sponsored by our industry and fishermen, or various entities on behalf of the fishermen. At that forum an expert panel of scientists listened to the concerns from industry, from fishermen, from other scientists. This is rather unique in my experience for an industry to make that kind of commitment, and there is probably more risk to our industry than there may be to gain. But again, it is in the spirit of good corporate citizenship that we participated.

Information for Sound Management of Resources

During the last several months, there have been collected thousands of line miles of geophysical data on state waters that has, along with other data collected during nearly 37 years of geophysical exploration offshore California, contributed to the encouragement of petroleum companies to further explore your coastal waters, or to seismically explore areas where prospects are poor. This data has contributed to the state of California's knowledge of petroleum resources for informed and sound decisions on how to manage the resources on State lands at nominal cost to the State Treasury. We anticipate that substantial benefit will continue to accrue to the citizens of California as the petroleum industry continues to be encouraged by the prospects for oil and gas under state waters.

Encouragement

Now as this Committee is deliberating SB 1610 we encourage you to consider the information covered in this testimony and acknowledge that although an adverse effect is a potential, our industry can conduct its activities offshore without significant effects on living marine resources. To assure that significant effects do not occur, you can be encouraged by our industry's commitment to continuing to work on the concerns about enviornmental effects, about relationships with other users or Coastal waters, such as fishermen, and to continue to contribute a petroleum information base necessary for wise use of California's resources.

Thank you very much for IAGC's opportunity to make these comments today on behalf of the geophysical exploration industry.

Protesters' tactics called dangerous

By Jerry Rankin
News-Press Staff Writer

A Greenpeace vessel protesting oil surveying was in the channel again today, while a spokesman for the survey firm warned that someone could get hurt by the harassment tactics that violate seagoing rules of the road.

Greenpeace's Rainbow Warrior, which began the cat-and-mouse harassment at a survey site off of Gaviota on Tuesday, departed from Santa Barbara again before noon today. Since the protesters don't say beforehand where they are headed, it was uncertain what their target was. However, several survey ships were scheduled to operate in the channel today.

Whatever the target is, a spokesman for the ship harassed on Tuesday said this morning that the Greenpeace tactics are dangerous for everyone concerned, break international rules for safe seagoing and may bring a request to the Coast Guard to impound the Rainbow Warrior.

"My concern is that someone is going to get hurt," said Robert Witten, port captain for San Diego-based Nekton Inc., whose seismic survey vessel Rex Horton is operating in state waters off Gaviota.

Witten, a veteran of 40 years on the ocean, said "We don't object to their right to object" to the survey in preparation for oil drilling. "We object to the way they're objecting."

He said the Greenpeace tactics "violate every international law pertaining to safe navigation,"

See Page D-2, Col. 5

Santa Barbara Times

Seagoing protest called dangerous

Continued from Page D-1

adding, "if they keep this harassment up, the Coast Guard should impound them."

He said pictures were being taken of the Greenpeace maneuvers and if they continued today, he would file the protest the Coast Guard needs before it can take action. "If they violate the rules of the road we will file a very strong protest," he declared.

He cited two in particular from a book on international rules of the road for mariners:

— The Rex Horton is towing a submerged seismic survey cable half a mile long, and thus is considered a vessel restricted in its ability to maneuver. Other vessels thereby have an obligation to keep out of its way.

— The Rex Horton also is considered a "stand-on" vessel, that is, one that must maintain its course and speed. The Rainbow Warrior thus becomes a "give-way" vessel — one required by the rules "to keep out of the way" of a stand-on ship.

Despite these rules, he noted, the Rainbow Warrior is putting small, fast Zodiac motor-driven rafts into the water, and the rafts zip back and forth in front of and behind the survey vessel.

Even though the survey vessel is going just about four knots, Witten said the protesters put themselves in danger of being hit if an engine fails on a raft, or if the Rex Horton turns in a direction the rafts also go.

He said the protest by the Rainbow Warrior, which flies the British flag, hasn't substantially affected the survey, which had been expected to be completed around Saturday.

He complained that while the Greenpeace tactics guarantee the publicity the group courts, little is said about its violation of the rules of seafaring and the danger thereby caused to innocent parties.

SEA GRANT
CALIFORNIA

COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA

MARINE ADVISORY PROGRAM

SOUTH CENTRAL CALIFORNIA

OIL AND GAS PROJECT NEWSLETTER FOR FISHERMEN AND OFFSHORE OPERATORS

377 STORKE ROAD, GOLETA, CA. 93117 805/968-2149 *Volume 2 No. 3 March 1985*

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EDITORS

Laura L. Manning
Laura L. Manning, Programs Rep.

Karen Worcester
Karen Worcester, Research Associate

CALIFORNIA OFFSHORE PETROLEUM CONFERENCE SCHEDULED FOR LONG BEACH

The Statewide Energy Consortium of California State Univ. at Fullerton, and the American Society for Environmental Education at Hanover, NH will cosponsor the "1985 California Offshore Petroleum Conference."

Place: R.M.S. Queen Mary, Long Beach, California
Dates: March 26-29, 1985

Topics of discussion include:
- --offshore leasing issues
- --technology and regulation
- --marine ecosystem issues
- --air quality issues
- --socioeconomic issues
- --energy and environmental education

Participants include high level representatives from the federal and state regulatory agencies, oil companies environmental groups, state and local governments.

One section will address the commercial fishing issues related to offshore oil development.

Registration fees:
--$245 conference + 3 banquets with featured guest speakers, or
--$195 conference, no meal functions.

Contact: STATEWIDE ENERGY CONSORTIUM
California State University
Bldg. T-14
Fullerton, CA 92634
714/773-3405

Market squid, Loligo opalescens.

Registration at the door will also be possible.

Special rates for staying at the Queen Mary are available if attending the conference. If interested call:
--California only 800/352-7883
--Outside of California 800/421-3732

[illegible]

[illegible]

[illegible]

FISHERIES UPDATE

Good weather throughout February encouraged fishing activity this month. Reportedly, water temperatures are about normal for this time of year. Several seasonal openings and closures in March and April will affect fishing effort in general.

Trawl Fishery

North of Pt. Conception, effort continues for dover sole in deeper waters. Pink shrimp season opens April 1st, so some effort from about 80 to 120 fathoms can be expected at that time.

South of the point, fishing for ridgeback prawns proceeds as in previous months; this will likely continue until June, when restrictions limit the fishery. Other trawlers are targeting on halibut, sea cucumbers, or spot prawns. March 14th marks the closure of halibut season.

Trap Fisheries

Though lobster fishing primarily occurs within 25 fathoms, on occasion traps may be set as deep as 40 fathoms. Lobster season officially closes on March 20th. However, since all traps cannot be brought in at once, some can be expected to remain in the water beyond that date, with doors left open to prevent capture. Some fishermen are already bringing in their lobster gear. Rock crab trapping has no seasonal closures.

Gill Net Fisheries

The closure of the drift gill net season for thresher shark and swordfish ends on the last day of April. Until then, increased set net effort can be expected. Steady effort off the islands for angel shark continues, and there are a number of boats fishing halibut off the coast from Pt. Arguello to Pt. Mugu. Restriction of set net effort to waters outside of 15 fms. continues north of the Santa Maria River mouth. Some nets can be expected in much deeper water, targeting on rock fish.

Purse Seine Fishery

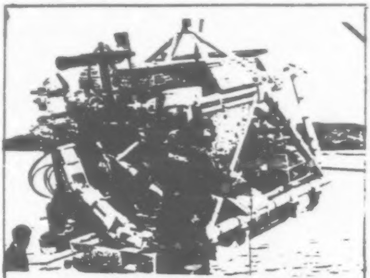
Purse seiners are once again active, as a result of a 5000 ton increase in the quota-per-month for the months of February, March, and April. Landings south of Pt. Buchon are now limited to 200 tons per week; landings made north of the point don't apply to this limit. Cannery-imposed limitations also restrict landings by fishermen.

Other Fisheries

After a one-month closure, diving effort for abalone continues. Sea urchin diving is also active, as a result of good weather and market conditions.

Also, there have been signs of squid off Santa Rosa Island. A dozen or more boats have been fishing at night with lights in that area.

Though this year's commercial salmon season has not yet been set, effort by trollers is likely to begin in May (last year's season ran from May 1st to May 31st for all species but Coho, and then from June 1st to Sept. 30 for all species). Sport salmon season has already begun.



A remote control vehicle used to inspect and clean underwater pipe is lowered into the water.

SEISMIC SURVEYS:

WHAT TO DO TO SERVE YOUR BEST INTERESTS

The following is intended to provide information to commercial fishermen regarding interactions with geophysical surveys which come in to the area they fish. By taking advantage of this information, fishermen can ensure that their own interests are being protected while avoiding conflict with properly noticed seismic surveys.

The Federal Minerals Management Service issues permits to do seismic surveys outside the three-mile limit, and the State Lands Commission issues these permits inside of this limit. Each agency has a person responsible for assuring that this survey work proceeds without interfering with or harming other uses of the area. Currently the persons responsible for this multiple use coordination are:

Ms. Debora Burdick
MINERALS MANAGEMENT SERVICE
1340 W. Sixth St.
Los Angeles, CA 90017
(213) 688-4630

Ms. Susan Livenick
STATE LANDS COMMISSION
245 W. Broadway, Suite 425
Long Beach, CA 90802
(213) 590-5201

Both of these agencies require companies to provide a notice to fishermen and other ocean users either 10 days (federal) or 15 days (state) in advance of the actual operations. These notices are posted at harbormaster's offices, fuel docks, commercial fishing group's offices, marine supply stores, fish buyers/processors, Liaison Office, and so forth, to give fishermen advance notice of surveys.

This is where you come in. The state and federal agencies expect you to see these survey notices and call them if you have fishing gear in the posted area which could be interfered with by the survey work. IF THEY DO NOT HEAR FROM YOU, THEY ASSUME THAT THERE IS NO CONFLICT. So it is extremely important for you to make contact with the company representative or agency contact listed on the notice; many of the companies will accept collect calls for this purpose. An alternative is to call the Oil/Fisheries Liaison Office in Santa Barbara, at (805) 963-8819. Your information can be passed on to the appropriate people through that office.

You have authorization to have your gear set where it is from the Department of Fish and Game, and the survey company has authorization to do survey work where permitted by the State Lands Commission or Minerals Management Service. It is possible for both industries to get their work done, given certain ground rules and procedures.

Many fishermen have been cooperating with seismic survey companies, when requested, by moving traps or nets out of a specified location for a short period of time, and then moving them back in when the survey work is done. In return, survey companies have been willing to negotiate arrangements with individual fishermen in appreciation for doing so. Some such agreements have been made verbally, while others have made formal written agreements. The choice is up to the fishermen and seismic companies. WHICHEVER PROCESS IS FOLLOWED, IT IS ALSO ADVISABLE FOR THE SEISMIC COMPANY AND FISHERMAN BOTH TO CALL THE LIAISON OFFICE TO RECORD THE AGREEMENT, SO THAT MISUNDERSTANDINGS CAN BE AVOIDED.

Sometimes it may not be possible for a fisherman to move his gear: his boat is under repair, the weather doesn't permit it, or many other reasons. In these instances other arrangements have been worked out: the fisherman has a friend or other fisherman move the gear for him, the seismic survey boat may delay a few days until such time as the gear can be cleared, and so forth. This is why early notification by the seismic companies and early response by fishermen is essential to avoiding conflicts. Leaving it to the last minute or not responding at all has led to severe problems in several instances, all of which could have been avoided by early and effective communication by companies and fishermen alike.

The system which has been set up can work if the following steps are taken:

1. EARLY POSTING of survey plans by the seismic companies.
2. Fisherman READING the posted notices to see if any upcoming surveys are in areas where they have fishing gear.
3. FISHERMEN CALL THE COMPANY, THE LIAISON OFFICE, OR THE GOVERNMENT AGENCY AS SOON AS THEY CAN IF A SURVEY IS IN SUCH AN AREA.
4. A company representative and affected fishermen GET TOGETHER EARLY to plan which specific areas need attention and schedule mutually agreeable dates for operations.
5. Seismic companies use a SCOUT BOAT to be sure the area is free of potential conflicts with fishing gear before actually towing a cable through an area.
6. Both fishermen and seismic companies understand that weather, vessel, crew or equipment problems, or other unforseen events can alter the best laid plans and ALLOW SOME TIME FLEXIBILITY for solving mutual operations problems.

If you have any questions or comments regarding any of this information, or want to find out more about how to protect your best interests and still cooperate on the ocean, call the Liaison Office. More information is available there on ways to avoid conflicts with seismic surveys.

Craig Fusaro

CRAIG FUSARO
LIAISON OFFICE
121 GRAY AVE., SUITE 3
SANTA BARBARA, CA 93101
(805) 963-6819

PLAN OF DEVELOPMENT

EXXON COMPANY,USA P-0440 PLATFORM SHAMROCK

Contacts:

Dave Olsen
Exxon Company, USA
PO Box 5025
Thousand Oaks, CA 91359-5025
805/494-2605

Eugenia Laychak
California Coastal Commission
631 Howard St.
San Francisco, CA 94105
415/543-8555

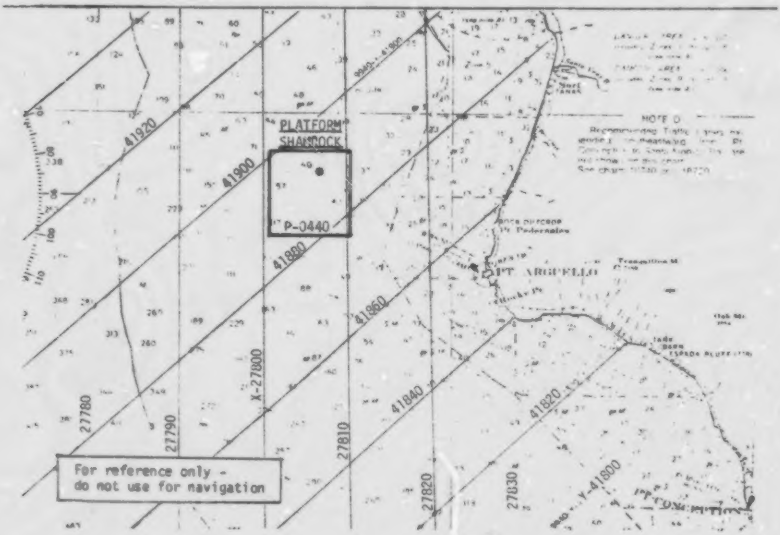
LORAN-C COORDINATES X	LORAN-C COORDINATES Y	WATER DEPTH
27806.6	41890.1	277' (46 fms)

Scheduled for the March 12-15 Coastal Commission hearing, Shelter Island Marina, San Diego. To comment on the project contact the people named above as soon as possible.

NOTES

Pipelines include:
1) an oil/water emulsion pipeline, 2) a gas pipeline, 3) a subsea power cable.

All will be installed between the proposed SHAMROCK platform and proposed UNION Platform IRENE. Pipelines will continue along a 200 foot wide corridor from IRENE to shore, with the landfall approximately one-half mile north of the Santa Ynez River.


PLATFORM SHAMROCK
P-0440
41920
41900
41880
41860
41840
41820
X-27800
Y-41800
27780
27790
27810
27820
27830
PT. ARGUELLO
NOTE D

For reference only -
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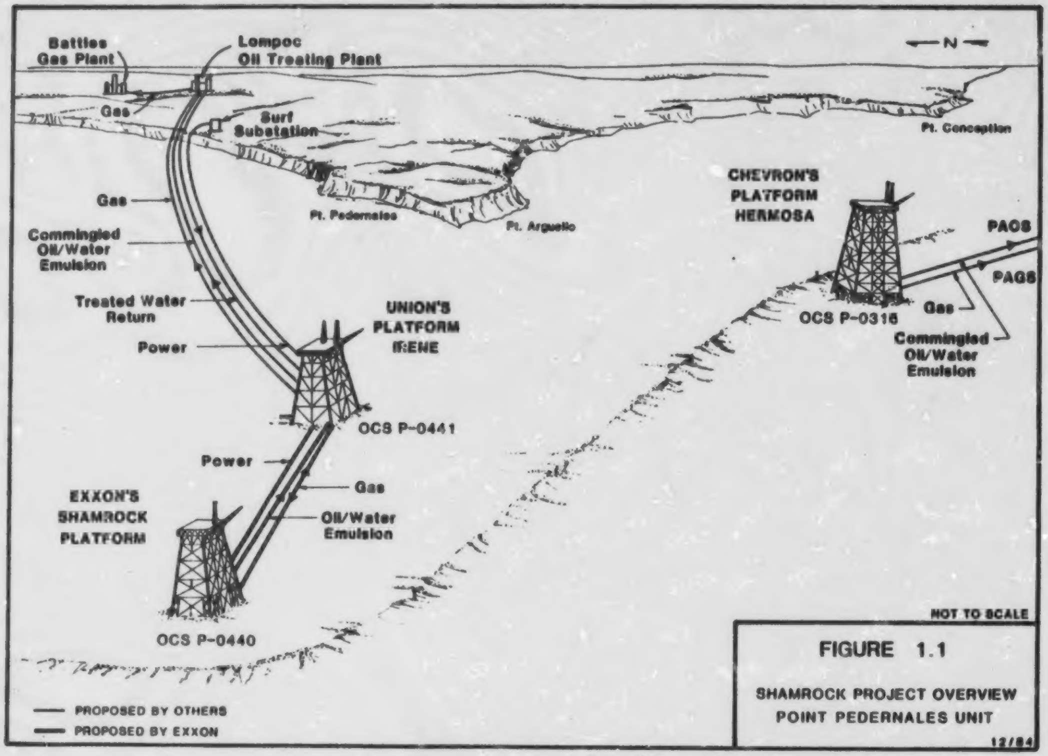

Battles Gas Plant
Lompoc Oil Treating Plant
←N→
Gas
Surf Substation
Pt. Conception
Pt. Pedernales
Pt. Arguello
CHEVRON'S PLATFORM HERMOSA
PAOS
PAGS
Gas
Commingled Oil/Water Emulsion
OCS P-0315
Gas
Commingled Oil/Water Emulsion
Treated Water Return
Power
UNION'S PLATFORM IRENE
OCS P-0441
Power
Gas
Oil/Water Emulsion
EXXON'S SHAMROCK PLATFORM
OCS P-0440
NOT TO SCALE
PROPOSED BY OTHERS
PROPOSED BY EXXON

FIGURE 1.1

SHAMROCK PROJECT OVERVIEW
POINT PEDERNALES UNIT

12/84

465

SHELL PROPOSED SUBSEA GAS FLOWLINES IN STATE WATERS BETWEEN GAVIOTA AND TAJIGUAS

Shell proposes to install two new subsea gas flowlines in state waters on Lease PRC 2920 (the Molino Field.) Except for short distances from the wellheads to the existing flowlines, the proposed lines would parallel those already in place.

Loran-C Coordinates for Proposed Wellheads:
Well 8: X=27913.0, Y=41696.3
Well 9: X=27912.0, Y=41698.4
Water Depths:
#8= 39 fms (238'), #9= 38 fms (230')

Shell plans to use the "pull barge" method to lay these lines. Each line will take approximately 4 days to install.

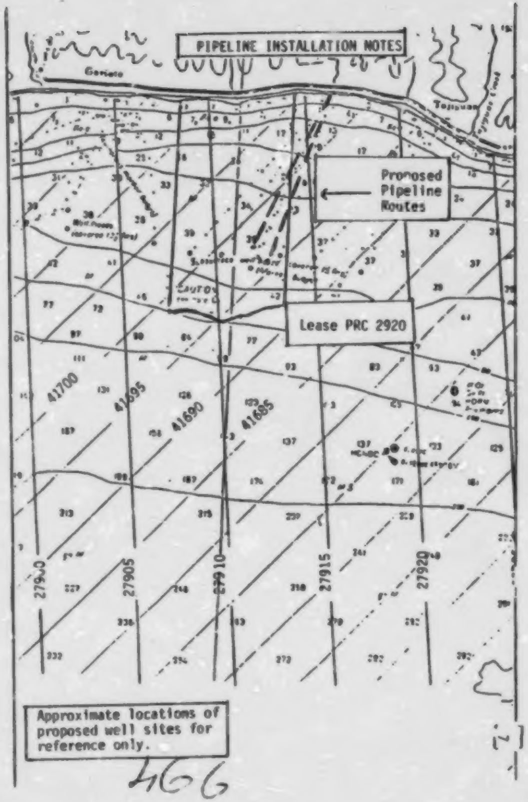
The flowline plans call for welded construction (no flanges or valves), with sacrificial anodes designed, according to Shell, to eliminate the snagging of fishing nets.

The anticipated construction schedule calls for installation of the flowlines about April, 1985.

Tentatively scheduled for either the March 27-29 Coastal Comm. hearing in Carmel, or the April 9-12 hearing in Santa Barbara. To comment, contact the following people as soon as possible:

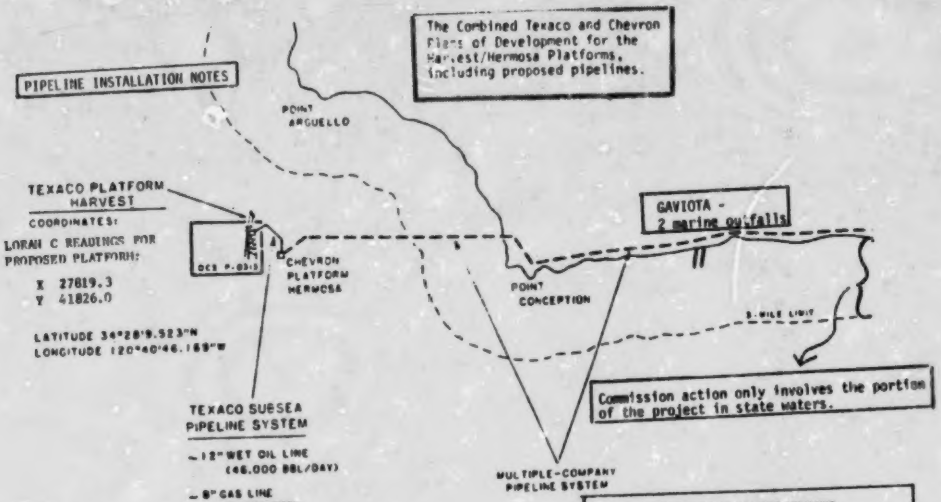
John Hallet
Shell California Prod Inc.
P.O. Box 11164
Bakersfield, CA 93389
805/326-5281

Eugenia Laychak
CA Coastal Commission
631 Howard St.
San Francisco, CA 94105
415/543-8555


PIPELINE INSTALLATION NOTES
Gaviota
Tajiguas
Proposed Pipeline Routes
Lease PRC 2920
41700
41695
41690
41685
27900
27905
27910
27915
27920

Approximate locations of proposed well sites for reference only.

466


PIPELINE INSTALLATION NOTES
POINT ARGUELLO
OCS P-0315
CHEVRON PLATFORM HERMOSA
POINT CONCEPTION
GAVIOTA -
2 marine outfalls
3-MILE LIMIT
MULTIPLE-COMPANY PIPELINE SYSTEM

The Combined Texaco and Chevron Plans of Development for the Harvest/Hermosa Platforms, including proposed pipelines.

TEXACO PLATFORM HARVEST

COORDINATES:

LORAN C READINGS FOR PROPOSED PLATFORM:

X 27819.3
Y 41826.0

LATITUDE 34°28'9.523"N
LONGITUDE 120°40'46.169"W

TEXACO SUBSEA PIPELINE SYSTEM

- 12" WET OIL LINE (46,000 BBL/DAY)
- 8" GAS LINE (36 MMSCFD)

Commission action only involves the portion of the project in state waters.

NOTE: PIPELINE CORRIDOR DURING INSTALLATION VARIES IN WIDTH FROM 6,700' TO 9,400' (depending on water depth) TO ACCOMMODATE BARGE ANCHOR SYSTEM.

INSTALLATION WILL REQUIRE 3 WEEKS.

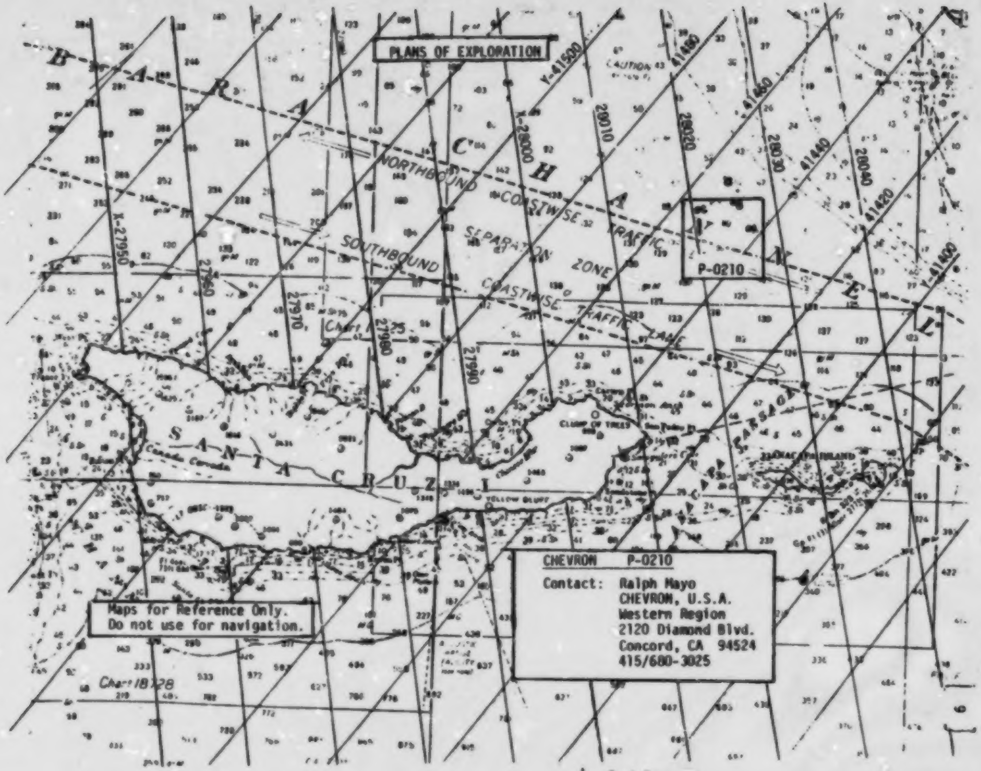
NOTE: ONLY PLATFORM HARVEST AND THE PIPELINES BETWEEN IT AND PLATFORM HERMOSA WOULD BE INSTALLED AND OPERATED AS PART OF THIS PROJECT. OTHER FACILITIES WOULD BE INSTALLED AND RUN BY OTHER OPERATORS

PT. ARGUELLO PIPELINE PERMITTING

To comment on the proposed pipeline corridor from Platform HERMOSA to shore, contact:

Eric Metz	Ralph Mayo
CA Coastal Comm.	CHEVRON USA
631 Howard St.	Western Region
San Francisco, CA 94105	2120 Diamond Blvd.
	Concord, CA 94524
415/543-8555	415/680-3025

Tentatively scheduled for Coastal Comm. meeting March 27-29 at the Holiday Inn in Carmel.



PLANS OF EXPLORATION
BARBARA CHANNEL
NORTHBOUND COASTWISE TRAFFIC
SEPARATION ZONE
SOUTHBOUND COASTWISE TRAFFIC LANE
P-0210
SANTA CRUZ I
ANACAPA PASSAGE
ANACAPA ISLAND
YELLOW BLUFF
Canada Corada
Chart 18725
Chart 18728
Y-41500
41480
41460
41440
41420
41400
X-27950
27960
27970
27980
27990
X-28000
28010
28020
28030
28040

CHEVRON P-0210

Contact: Ralph Mayo
CHEVRON, U.S.A.
Western Region
2120 Diamond Blvd.
Concord, CA 94524
415/680-3025

Maps for Reference Only.
Do not use for navigation.

EXPLORATORY DRILLING NOTES

CHEVRON P-0210

Contact: Ralph Mayu
CHEVRON, U.S.A.
Western Region
2120 Diamond Blvd.
Concord, CA 94524
415/680-3025

* All Proposed Wells may not be drilled

LOCATION	PARCEL & WELL NO.*	LORAN C COORDINATES		WATER DEPTH		REMAINING HEARINGS & PUBLIC COMMENT OPPORTUNITIES	NOTES
	P-0210	X	Y	Feet	Fathoms		
About 12-15 miles SW of Ventura	a	28026.7	41442.5	755'	(126 fms)	Public hearing to be scheduled. To comment, contact the following people as soon as possible: 1) Ralph Mayo CHEVRON, USA Western Region 2120 Diamond Blvd. Concord, CA 94524 415/680-3025 2) Billie Blanchard CA Coastal Comm. 631 Howard St. San Francisco, CA 94105 415/543-0555	Chevron has revised the POE on the Environmental Report, and will submit these documents to MMS for a secondary completeness review.
	b	28025.3	41449.8	755'	(126 fms)		
	c	28020.7	41455.8	755'	(126 fms)		

BEST COPY AVAILABLE

EXPLORATORY DRILLING NOTES

CHEVRON - P-0499, P-0500

Contacts:

1)Ralph E. Mayo
CHEVRON USA Inc.
P.O. Box 8000
Concord, CA 94524-8000
415/680-3025

2)Minerals Management Service:
-For comments or information on the exploration plan:
Tom Dunaway - 213/688-2007

-For comments or information on fisheries-related questions:
Craig Wingerit - 213/688-7234

Both can be reached by writing to:
Minerals Management Service
Pacific OCS Region
1340 W. 6th St.
Los Angeles, CA 90017

3)Eugenia Laychak
California Coastal Commission
631 Howard St.
San Francisco, CA 94105
415/543-8555

PUBLIC HEARING OPPORTUNITIES

This project is in a very early stage in the permitting/consistency certification process. Public hearings will be scheduled at a later date.

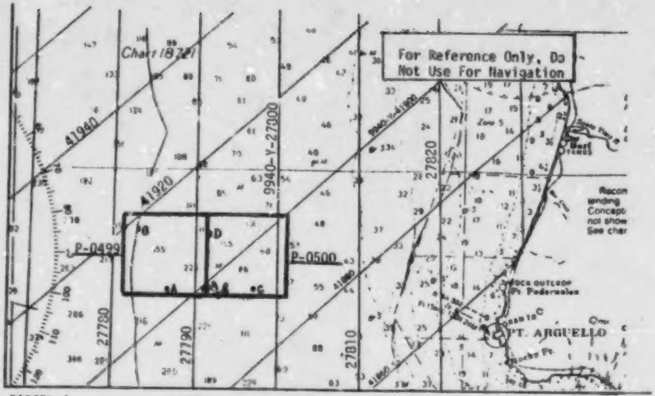


Chart 18721
For Reference Only. Do Not Use For Navigation
41940
41920
9940-Y-27300
P-0499
P-0500
27780
27790
27810
27820
Rock outcrop Pt. Pedernales
PT. ARGUELLO

PARCEL &* WELL NO.	LORAN C COORDINATES X	LORAN C COORDINATES Y	WATER DEPTH Feet	WATER DEPTH Fathoms
P-0499				
a	27786.7	41904.5	1,280'	(213 fms)
b	27783.1	41918.1	1,050'	(175 fms)
P-0500				
a	27790.9	41898.9	870'	(145 fms)
b	27792.6	41896.5	755'	(126 fms)
c	27797.0	41892.5	560'	(93 fms)
d	27791.2	41907.8	675'	(113 fms)

*All proposed wells may not be drilled.

SEISMIC SURVEY LOG

Note: This summary is only intended to serve as a brief notification of geophysical activity off the south central California coast. For further information or clarification of any of these surveys, please check the official seismic notices at your nearest harbormaster's office.

- To avoid gear conflicts, contact seismic vessel representative as early as possible.

FYI: Government Agency Coordinators for seismic survey regulation:

Federal Waters

Geophysical Coordinator
Minerals Management Services
1340 W. 6th Street
Los Angeles, CA 90017
216/688-2500

State Waters

Geophysical Coordinator
State Lands Commission
245 W. Broadway - Suite 425
Long Beach, CA 90802
213/590-5201

VESSEL AND DATE	AREA OF SURVEY	GEOPHYSICAL CO. CONTACT OR REP.	COMMENTS, CHANGES, ETC.
WESTERN GLACIER 1/18 - 5/1/85	In state & federal waters West between Huntington Beach and Corono del Mar	SHELL WESTERN Don Smith 805/966-3504	Airgun. Length of cable tow: 3200 meters
UPDATE: ARCO RESOLUTION 2/15 - 4/15/85	In two areas in state & federal waters: 1) Due West in the Sacate area, between Pt. Conception and Gaviota 2) Due West between Naples and Goleta. (Coal Oil Pt. area).	ARCO EXPLORATION Mike Bell 214/422-3145	Non-dynamite air acoustic pulse generator. Length of cable tow: appr 3 kilometers
M/V INDIAN SEAL 1/20 - 4/20/85	In federal waters in Santa Barbara Channel.	GEOPHYSICAL SERV. Doug Chapman 713/494-9061	Airgun. Cable tow at depth of bet. 6 & 12 meters & 3600 meters in length
M/V INDIAN SEAL 11/15/84 - 4/15/85	In federal waters, Wilson Rock 3D Survey. Due South between San Augustine and Gaviota	CHEVRON, U.S.A. Ralph E. Mayo 415/680-3025	Airgun. Cable tow: 3000 meters.
DIGICON EXPLORER 2/6 - 4/8/85	In federal waters West of Pt. Hueneme.	DIGICON GEOPHYSICAL Frank Longly 805/985-6311	Airguns. Length of tow: 3000 meters
UPDATE: DIGICON EXPLORER 2/6/85- approx. 3/6/85	West/Southwest of Pt. Hueneme in state & federal waters.	DIGICON GEOPHYSICAL Frank Longly 805/985-6311	Airguns. Length of cable tow: app. 3000 meters

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GEOPHYSICAL SERVICE INC.
POST OFFICE BOX 225621 • DALLAS, TEXAS 75265
214-995-6770 • CABLE: GEESYE

23 August 1985

Mr. Donald P. Hodel
Secretary of the Interior
Main Interior Building
"C" Street Between 18th and 19th
Washington, D.C. 20240

Dear Mr. Hodel:

The announced preliminary agreement to lock out the petroleum industry from all but a few OCS lease tracts offshore of California now under a legislative moratorium would have severe economic consequences for my company and others like ours who perform exploration geophysics for petroleum companies. This industry would suffer the loss of over $30,000,000.00 in sales of data collected to date from the lock-out areas that would become public before the expiration of the lock-out period (the year 2000), and would lose over $40,000,000.00 in business that would have been performed for clients between now and the year 2000 if leasing were allowed to proceed in a manner more atuned to the interests in petroleum prospects and the nations need for discovering new reserves.

Those lost revenues to our industry also mean diminished tax receipts for California, numerous other states where industries supporting the offshore industry are located, and losses in taxes, bonuses, fees, and royalties to the deficit burdened U.S. treasury. More to the point, that diminished business means a loss of jobs in California and many other states, shifting of the U.S. marine exploration fleet to foreign waters (or to dry docks), and a diminished capacity for geophysical exploration in the U.S. at a time it is critically needed to be the leading edge of the search for new reserves.

Our industry has been very active in research of concerns about effects on marine mammals, fish and commercial fishing in cooperation with state and federal government agencies, and with other users of the oceans resources. We have gone beyond the letter of the laws on environmental conservation, preservation, and pollution controls, have developed (and are continuing to develop) technologies tender to the environment, and have furnished expertise, crews and vessels at our own expense. We have been corporate good citizens, and are very proud of that fact.

We urge you to reject the administrative moratorium and to carry out the OCS leasing program in accordance with the purposes and objectives of the OCS Lands Act and regulations.

Sincerely,

Dolan K. McDaniel
President

Mr. **Arnold**. Thank you, Mr. Bowles.
Mr. Bates.

STATEMENT OF ROBERT E. BATES, JR., MANAGER, GOVERNMENT RELATIONS, MOBILE OIL CORP., ON BEHALF OF THE AMERICAN ASSOCIATION OF BLACKS IN ENERGY

Mr. **Bates**. Thank you very much, Mr. Arnold. I appreciate the opportunity to appear before you this afternoon.

My name is Robert Bates and I am manager of government relations for Mobil. I serve primarily to advocate the company's interests in environmental and chemical matters. But I appear before you today as chairman of the American Association of Blacks in Energy. We are a 7-year-old organization of employees of oil companies and utilities.

We have opposed moratoria on offshore drilling for more than 3 years, and our principal reason for doing so is based upon our belief that such moratoria cut down on the use and availability of natural energy supplies available to our Nation, but, most importantly, begin to gnaw away at the opportunities for jobs.

And as employees of the companies that are responsible for producing energy for our Nation, and given the history that our country has demonstrated regarding black employees, we feel that moratoria simply serve to restrict our opportunities.

As I have listened to the other witnesses and heard from them the very fine expressions of their technical expertise and the demonstrations of why they believe the moratoria would be detrimental to their companies, I simply want to add my endorsement to their views.

The members of our association serve in a wide range of jobs in our companies. Some are engineers, some are lawyers, and some serve as labor contractors. Some of us work here in Washington in Government relations. Others perform all manner of jobs that are normal and routine in our companies.

But we have watched the change in the energy industry over the past decade and begun to observe how the companies, structures are beginning to change, and we have found that as they change there are also obvious and necessary changes in the employment structures. And so it is our concern that any attempt to cut back, No. 1, on the resources upon which our companies are dependent is a direct assault or a direct assailance on our opportunities as individual employees.

I remember about 2 years ago appearing before a House Subcommittee on Appropriations on a similar moratoria that dealt with another part of our country. There was at that time a feature in Ebony magazine of a young black mother in New Orleans, who after struggling to raise her family and working onshore, had finally gotten a job and, believe it or not, she got a job on an offshore drilling rig out in the Gulf of Mexico, where she was serving along side men, handling the heavy equipment and doing the same kinds of jobs that others on that rig were also performing.

I don't have a copy of that publication with me today, but I just found that to be a very, very timely depiction of the interests that I am portraying and bringing to your attention. That is, why not be sure that we can all who want to work have an opportunity to do so in the many, many different areas in which our companies provide that opportunity.

And in this case, a woman in her late thirties who was out there doing some things that I doubt that I would really enjoy doing. I was particularly encouraged and pleased to see that.

So my message is a very simple one: Don't have the moratorium because it cuts down on jobs. And I want to be sure and the members of our association want to be sure that there are as many jobs as we can hold and will provide opportunities for us.

Thank you again for an opportunity to appear before you today.

[The prepared statement of Mr. Bates follows:]

STATEMENT

of

ROBERT E. BATES, JR.
MOBIL OIL CORPORATION
WASHINGTON, D.C.

on behalf of

THE AMERICAN ASSOCIATION OF BLACKS IN ENERGY

before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
September 17, 1985

Mr. Chairman and members of the Committee, I am Robert E. Bates, Jr. of the staff of Mobil Oil Corporation here in Washington, D.C. I appear today on behalf of the American Association of Blacks in Energy, of which I serve as Chairman.

The AABE is opposed to proposals to renew offshore oil and natural gas leasing moratoria because we believe those proposals would result in further unnecessary delay in the pace and extent of the Outer Continental Shelf leasing program. We believe it is essential that U.S. energy policies ensure the best use of available domestic energy resources. In that way all Americans can be provided with adequate supplies of energy.

The American Association of Blacks in Energy was formed in 1977. The Association serves as an energy information source for policymakers, and provides an informed voice for all Black Americans in local, national and international energy forums. Our fundamental goal is to promote national energy policies guaranteeing adequate energy supplies. The potential OCS oil and gas resources represent a vital foundation for the country's hope for reducing our dependence on foreign oil. America's economy runs on oil and natural gas and will continue to do so for the foreseeable future.

We continue to believe that enactment of the moratoria, year after year, has slowed down U.S. energy progress and risks a return to the needlessly high import levels of the 1970s, when supply disruptions and government price controls led to severe shortages.

Oil imports last year increased 8 percent, after four straight years of decline. Imports now account for roughly one-third of all the oil we use -- as was the case just prior to the Arab oil embargo of 1973. This continued heavy dependence on oil imports undermines our national security, weakens our economy, costs American jobs and worsens our balance of trade deficit.

U.S. reliance on oil imports can be reduced if the nation makes decisions that remove artificial obstacles to domestic production and enhance U.S. energy supply. One vital step in this direction is orderly development of offshore oil and natural gas resources. But such development will be blocked by the renewal of the leasing moratoria.

Just as importantly, we need the revenues, taxes and jobs that an aggressive offshore leasing program will create to help us to achieve and maintain a strong economy.

The extremely harmful effects of restraining OCS development would not be limited to coastal states but would be felt throughout the nation. Specifically, offshore drilling creates hundreds of thousands of jobs in thousands of companies. Many of these jobs and companies are concentrated in inland states.

o Construction materials for exploratory rigs are manufactured in Ohio, Indiana, Pennsylvania and Illinois.

o Drill pipe and other production equipment and tools are made in Iowa, Oklahoma, Utah and Wisconsin.

o Service vessels, helicopters and workboats are manufactured in Missouri, Arkansas and Wisconsin.

o Support items such as weatherproofing paint, safety and rescue equipment, work clothing and footwear, and fire detectors are manufactured in more than a dozen inland states.

The American Association of Blacks in Energy advocates the full participation of Black Americans and other minorities in the energy programs and policymaking activities initiated by private industry and by federal, state, and local government agencies. As such, the AABE has worked for laws and regulations to advance affirmative action programs for operations in the Outer Continental Shelf. Any moratoria on the OCS will effectively nullify affirmative action programs currently in place.

The leading proponents of moratoria on offshore leasing insist that environmental damage may occur if oil and gas exploration are permitted to occur in the targeted areas.

AABE has consistently endorsed environmental protections to safeguard both our nation's valuable natural treasures and the well-being of every American citizen. Environmental considerations deserve to be an important feature of the continued search for offshore oil and gas. Environmental safeguards can clearly be engineered with current technological procedures for the areas affected. Experience from the Gulf of Mexico and from other regions serve as compelling testimony to that fact.

The OCS leasing program has a good safety record in sensitive near-shore and offshore environments. Over the past 30 years, more than 31,000 wells have been drilled and over 7 billion barrels of oil and 58 trillion cubic feet of natural gas have been produced along side healthy fishery and tourism industries. Please let this successful program continue to work for the benefit of all Americans. Do not impose needless OCS moratoria or tie the hands of the Interior Department which oversees one of the most successful and environmentally sound energy development programs now underway.

It is for these reasons that the American Association of Blacks in Energy recommends rejection of the proposed OCS moratoria.

The AABE is also opposed to any negotiated agreement outside the established leasing procedures provided by the Outer Continental Shelf Lands Act Amendments of 1978 and the Department of the Interior's five-year leasing program. Such an agreement would be ill-conceived and unnecessary and amount to an administrative moratorium as harmful as the legislative moratoria imposed by the Congress in recent years.

We urge Secretary Hodel to work within the procedures and administrative framework established by the Congress and ratified by the courts and to consult all interested parties with a stake in offshore development. The nation's energy future and economic well-being are too important to be determined by a small faction in one state. These are national concerns which must be addressed in an open, fair and equitable manner.

The AABE supports continued orderly development of America's offshore oil and natural gas resources and urges the Committee to reject any efforts to delay or block such development through leasing moratoria or any similar measures that would threaten our energy future.

Mr. Arnold. Thank you, Mr. Bates.

Mr. Curry.

STATEMENT OF JACK CURRY, PRESIDENT, CALIFORNIA TRAVEL PARKS ASSOCIATION

Mr. Curry. Thank you very much.

My name is Jack Curry. I live in Morro Bay, CA. I manage a 180-space RV park right on the beach in Morro Bay, and I get the privilege of waking up there each morning and looking at that beach. So I am very familiar with beaches and coastlines and that type of thing.

I am here today, though, representing California Travel Parks Association as its president. I am also speaking on behalf of the National Campground Owners Association, California Marine Resorts Association, the Northern and Southern California Marine Associations, and the American Recreation Coalition. Those organizations altogether represent quite a significant number of people, not only in the State of California but throughout the United States.

I have distributed previously copies of the resolution passed by the general membership of California Travel Parks Association at our annual meeting in 1984. Basically, the resolution states that the California Travel Parks Association owners and operators believe that the United States should be independent of foreign sources of energy. We believe that a continual program of offshore exploration is necessary to prevent future shortages of fuel which would severely hurt the vital recreation and travel industries in California; and we oppose further moratoriums of offshore development.

However, I do not know of one RV'er or one RV park operator or owner or marina operator who would want to see one square inch of our coastline or our ocean harmed or destroyed. In fact, environmental concerns are very high on our priority list.

As has been stated previously here today, offshore drilling is not a new science. In its many years of existence, there is only one major blemish and that is the Santa Barbara oil spill in 1969. Contrary to an opinion of Congressman Panetta earlier today, experts and studies show that the marine environment and the beaches show no lasting effects from that accident. And we believe that new regulations, technologies, and concerns in general could allow shore development causing little or no harm to our ocean and coastline.

To illustrate just a little bit of what effect another fuel shortage would have in California alone, let me just give you a few figures. In the State of California alone, there are 97,813 campsites, both public and private. Last year, there were more than 16 million campsite nights used. In other words, there were 16 million campsites occupied during the year 1984 in California alone.

That figure for the total United States would run about 61 million, and, if you would multiply those figures by approximately 2.7 average per campsite, you can see that in the United States last year there were approximately 1.5 billion campers on the roads.

There are over 700,000 registered RV's in the State of California alone, and that figure for the United States totals about 7.5 million.

The 843 marina members have over 118,000 boat storage spaces, and there are over 635,000 registered boats in the State of California. Our largest portion of the RV'ers and boaters are retired people—people who have worked 20 to 40 years after receiving their education, people who have used a good portion of their life's savings to purchase an RV so that they may travel and enjoy the country in which they have worked all those years.

I believe they deserve to travel and I believe they deserve to have reasonably priced fuel for their RV's. For these and other reasons, we feel that the United States. must obtain energy independence. The energy crisis is not over today, and I'm afraid we are faced with a new kind of crisis; a crisis of complacency.

In fact, from the articles that I read, the United States currently—and you have heard it before today—the United States is currently importing one-third of its oil. The scary part of that is that is the same percentage as at the time of the Arab oil embargo in 1973 and 1974.

It is essential that the moratoriums be lifted to allow the private companies to provide reasonably priced fuel and not be dependent on any unstable foreign country who can be our friend one minute and our enemy the next. We saw that in 1979.

For the past 4 years, Congress has imposed moratoriums on new offshore leasing off the California coast. This must be stopped now. If we continue down the moratorium path, the United States will become more and more dependent on foreign oil.

The so-called compromise last month by a few coastal Congressman and the Department of Interior is a laugh. It is not a compromise. It is a de facto long-term moratorium. This agreement would lock up until the year 2000 more than 97 percent of the area that is now under moratorium. Compromise? I don't think so.

And finally, Mr. Chairman, I urge you and this committee to hear the concerns of the little guy. Listen to the small business people, such as the RV parks and the marinas, who in many instances are struggling to stay in business today. Listen to the people, the people in the small communities, such as my home town of Morro Bay.

Listen to those who will most be affected by the decisions that you are going to make. Listen to those who get very little publicity because their message is not spectacular and draws little media attention.

And, above all and finally, do not listen only to a small group of politicians who are thinking only of their front yards. If offshore drilling is OK for Santa Barbara, Santa Maria, and Morro Bay, it should also be OK for Carmel, Monterey, San Francisco, or the Oregon coast. Let's be fair.

Thank you very much.

[The prepared statement of Mr. Curry follows:]

Mr. Chairman and Members of the Senate Energy Environment Committee;

My name is Jack Curry of Morro Bay, California
Manager - 180 space Recreational Vehicle Park on the beach

I am here today representing;
CALIFORNIA TRAVEL PARKS ASSOCIATION as President, and speaking on behalf of;
NATIONAL CAMPGROUND OWNERS ASSOCIATION
CALIFORNIA MARINA RESORTS ASSOCIATION
NORTHERN CALIFORNIA MARINE ASSOCIATION
SOUTHERN CALIFORNIA MARINE ASSOCIATION
AMERICAN RECREATION COALITION

I have for distribution; copies of a resolution passed by the General Membership of California Travel Parks Association at our 1984 annual meeting. I also have copies of a mailgram that was sent to California Governor George Deukmejian on August 29, 1985. The letter asks the Governor to continue his strong support for offshore oil and gas exploration, and is signed by 103 individuals and organizations from all over the state of California. The California Travel Parks Association resolution basically states: "CTPA owners and operators believe that the U.S. should be independent of foreign sources of energy. We believe that a continual program for offshore exploration is necessary to prevent future shortages of fuel, which would severely hurt the vital recreation and travel industry in California, and that we oppose further moratoriums of offshore energy development." However, I do not know of one RV'er or RV park owner, who would want to see one square inch of our beautiful state destroyed or harmed. In fact, environmental concerns are high on our priority list. Offshore oil drilling is not a new science. In it's many years of existence, the U.S. offshore industry has only had one major blemish on its record, the 1969 Santa Barbara oil spill. Experts agree and studies show that the marine environment and beaches show no lasting effects from that accident. We believe that new regulations, technologies and concerns in general could allow offshore development, causing little or no harm to our ocean and coastline.

To illustrate the effect another fuel shortage could have just in California, let me share a few figures:

California alone has	642	Private Campgrounds
	460	Public Campgrounds
	1,102	Total
	55,022	Campsites-Private
	42,791	Campsites-Public
	97,813	Total
Last year there were:	11	Million Camper Nights-Private
	5	Million Camper Nights-Public
	16	Million Camper Nights Total
The camper night total figure for the entire United States is over	61	Million per year

Now, that 16 million camper nights represents all types of camping, tenters, hikers, etc.. However, there are over 700,000 registered, (7½ million in the U.S.), RV's in the state of California. Increasing by over 31,000 new RV's each year. The 843 marina members have over 118,000 boat storage spaces, and there are over 635,000 registered boats in the state of California alone. The Marine Association Members in California are responsible for pouring 1.7 billion dollars yearly into the state's economy. A large portion of those RV'ers and boaters are retired people, people who have worked 20 to 40 years after receiving their education. People who have used a good portion of their life savings for an RV in order that they may travel and enjoy the country in which they have worked all those years. I believe they deserve to travel, and I believe they deserve to have reasonably priced fuel for their RV's. There is another rather large group, "camping families", who choose RVs for recreation and togetherness," a learning experience", if you will, to show their children this great and beautiful country they live in. I believe they deserve that, and I believe they deserve reasonably priced fuel.

For these, and other reasons, we feel that the U.S. must obtain energy independence. The energy crisis is not over today, and, I'm afraid we are faced with a new kind of crisis, -- a crisis of complacency. In fact, from the articles I read, the United States currently is importing one-third of its oil. That is the same percentage as at the time of the Arab oil embargo in 1973-74. It is essential that the moratoriums be lifted to allow private companies to provide reasonably priced fuel, and not be dependent on any unstable foreign country who could be our friend one minute, and our enemy the next. We saw that in 1979. Three quarters of the oil we will need in this country by the year 2000 is yet to be discovered, and I understand that one-third to one-half of the undiscovered U.S. oil lies offshore. For the past four years, congress has imposed moratoriums on new offshore leasing on the California coast. This must be stopped now. If we continue down the moratorium path, the U.S. will become more and more dependent on foreign oil. The so-called compromise last month by a few coastal congressmen, and the Department of Interior is a laugh. It is not a compromise -- it is a de facto long term moratorium. This agreement would lock up until the year 2000 more than 97% of the area that is now under moratorium. Compromise? I don't think so.

Senator McClure, I urge you and your committee to hear the concerns of the little guy. Listen to the small business people such as RV Parks and Marinas who in many instances are struggling to stay in business. Listen to the traveling public, listen to the "people" in the small communities such as my home town of Morro Bay, California. Listen to those who will most be affected by the decisions that you are going to make. Listen to those who get very little publicity because their message is not spectacular and draws little media attention. And, above all, do not listen only to a small group of politicans who are thinking only of their front yards. If offshore drilling is "OK" for Santa Barbara, Santa Maria, and Morro Bay, it should also be "OK" for Carmel, Monterey, and San Francisco, and the Oregon coast. Let's be fair!

Thank you for allowing me this time.

CTPA
CALIFORNIA TRAVEL PARKS ASSOCIATION

California
Travel Parks Association, Inc.

P.O. Box 348 • Auburn, California 95603 • (916) 885-1624

RESOLUTION

WHEREAS, the United States and California and its tourism industry face a long term need for greater energy self-sufficiency, and it is essential for this country to be independent of foreign sources of energy and secure in its own future, and the exploration and development of America's offshore energy sources would help reduce our dependence of foreign powers; and

WHEREAS, conservation and the development of new technologies to increase supplies and efficient use of traditional domestic and renewable energy resources alone are not enough to reduce our dependence on insecure and financially draining foreign energy supplies; and

WHEREAS, continued exploration and development of America's offshore energy resources will ensure a safe and secure domestic supply of oil and gas and lessen the possibility of an energy shortfall and the concommitant social and economic consequences which would be devastating to all Americans; and

WHEREAS, past gasoline shortages resulted in severe cutbacks in automobile and recreational vehicle travel and severely reduced travel industry dollar sales and increased employee layoffs; and

WHEREAS, any future energy shortage would once again negatively impact the various sectors of California's vital travel industry, which are dependent upon reliable and reasonably priced fuel; and

WHEREAS, the California travel industry is comprised primarily of numerous small businesses such as travel parks which do not have substantial financial resources to survive a serious energy shortage also would be devastated economically.

NOW THEREFORE BE IT RESOLVED that the CALIFORNIA TRAVEL PARKS ASSOCIATION opposes federal and state efforts to impose moratoriums in offshore energy development as excessive and an impediment to long range federal and state energy planning.

ADOPTED by the members of CALIFORNIA TRAVEL PARKS ASSOCIATION at its Ninth Annual Convention on March, 1984.

Signed John F. Imler
JOHN F. IMLER, President
CALIFORNIA TRAVEL PARKS
ASSOCIATION

/BATCH
/ZIP
GOVERNOR DEUKMEJIAN
OFFICE OF THE GOVERNOR
STATE CAPITAL BLDG.
SACRAMENTO CA 95814
(TELEFAX MESSAGE SERVICES
347 N. CANON
BEVERLY HILLS CA 90210)+

AUGUST 29, 1985

DEAR GOVERNOR DEUKMEJIAN:

PLEASE STAND FAST IN YOUR SUPPORT FOR OFFSHORE OIL AND GAS EXPLORATION ON A TRACT-BY-TRACT BASIS.

THE ENVIRONMENTALLY SENSITIVE DEVELOPMENT OF OUR OFFSHORE RESOURCES IS COMPATIBLE WITH THE PROTECTION OF OUR COASTLINES. IT IS ALSO VITAL TO OUR STATE'S AND OUR NATION'S LONG-TERM ENERGY NEEDS.

C-246400

THE NEW PROPOSAL OF CERTAIN COASTAL CONGRESSMEN AND THE DEPARTMENT OF THE INTERIOR IS NO "COMPROMISE". IT WOULD MAKE AVAILABLE FOR LEASING 150 OF THE 6,460 OFFSHORE BLOCKS CURRENTLY UNDER A TEMPORARY LEGISLATIVE MORATORIUM-- ONLY 2.3% OF THE TOTAL ACREAGE. THE REMAINDER, 97.7%, WOULD BE CLOSED TO LEASING UNTIL THE YEAR 2000. THE LONG LEAD TIMES REQUIRED FOR DEVELOPMENT (8-15 YEARS) COMBINED WITH THE PROPOSED 15 YEAR MORATORIUM CREATES A DE FACTO MORATORIUM OF 25 YEARS OR MORE.

AS YOU STATED, "THE OIL AND GAS RESOURCES OF THE OCS ARE TOO IMPORTANT TO NATIONAL SECURITY AND TO THE ECONOMY TO BE TIED UP IN BLANKET MORATORIA."

PLEASE OPPOSE THIS NEW MORATORIUM. WE CANNOT WAIT FOR THE NEXT EMERGENCY BEFORE TAKING ACTION.

SINCERELY YOURS,

STATE SENATOR ED DAVIS

STATE SENATOR ED ROYCE

ASSEMBLYMAN BILL BRADLEY

ASSEMBLYMAN JIM COSTA

ASSEMBLYMAN DON RODGERS

ASSEMBLYMAN JOHN LEWIS

C-246401

ASSEMBLYWOMAN CATHIE WRIGHT

MAYOR ALAN CATLIN, CITY OF FULLERTON

MAYOR BILL CUNNINGHAM, CITY OF HUNTINGTON BEACH

MAYOR DENNIS ORROCK, CITY OF VENTURA

MAYOR DON ROTH, CITY OF ANAHEIM

MAYOR HARRY WALKER, CITY OF WOODLAND

COUNCILMAN JIM HAYES, CITY OF STANTON

COUNCILWOMAN LINDA LEQUIRE, CITY OF FULLERTON

COUNCILMAN DENNIS LOJESKI, CITY OF ARCADIA

COUNCILMAN PATTI LONGO, CITY OF VENTURA

COUNCILMAN JIM MAY, CITY OF SANTA MARIA

COUNCILMAN THOMAS MILLS, CITY OF CARSON

COUNCILMAN JAMES MONAHAN, CITY OF VENTURA

COUNCILMAN ROLIE MOORE, CITY OF BAKERSFIELD

COUNCILMAN E.L. OVERHOLT, JR., CITY OF ANAHEIM

C-246402 MAN LESTER REESE, CITY OF BUENA PARK

COUNCILMAN ART ROCKOFF, CITY OF BAKERSFIELD

COUNCILMAN JIM WORTHEN, EUREKA CITY COUNCIL

SUPERVISOR JOSEPH FLYNN, EL DORADO COUNTY BOARD OF SUPERVISORS

SUPERVISOR ANNA SPARKS, HUMBOLDT COUNTY BOARD OF SUPERVISORS

CRESCENT CITY

CITY OF ARCADIA

CITY OF COMPTON

CITY OF EUREKA

CITY OF FULLERTON

CITY OF VENTURA

EDUARDO BERNALDEZ, PRESIDENT, AMERICAN G.I. FORUM

MEDA CHAMBERLAIN, PRESIDENT, LOS ANGELES CHAPTER OF NATIONAL COUNCIL OF NEGRO WOMEN, INC.

MARGARET CRUZ, FORMER STATE PRESIDENT, MEXICAN-AMERICAN POLITICAL ASSOCIATION

FIRMIN FEUERBORN, EXECUTIVE SECRETARY, BUILDING TRADES COUNCIL OF SANTA BARBARA/SAN LUIS OBISPO

C-246403 ORRIS, DIRECTOR, VENTURA ECONOMIC DEVELOPMENT ASSOCIATION

WARREN WHITE, EXECUTIVE DIRECTOR, TRI-AGENCY ECONOMIC AUTHORITY, EL DORADO COUNTY BOARD OF SUPERVISORS

CALIFORNIA CHAMBER OF COMMERCE

COACHELLA VALLEY MEXICAN-AMERICAN CHAMBER OF COMMERCE
COMPTON LATINO CHAMBER OF COMMERCE
EUREKA CHAMBER OF COMMERCE
FRESNO CHAMBER OF COMMERCE
GREATER BAKERSFIELD CHAMBER OF COMMERCE
LONG BEACH AREA CHAMBER OF COMMERCE
MERCED MEXICAN-AMERICAN CHAMBER OF COMMERCE
MONTEBELLO CHAMBER OF COMMERCE
PASADENA CHAMBER OF COMMERCE
RIDGECREST CHAMBER OF COMMERCE
RIVERSIDE HISPANIC CHAMBER OF COMMERCE
SACRAMENTO MEXICAN-AMERICAN CHAMBER OF COMMERCE

C-246404

SAN BERNARDINO AREA CHAMBER OF COMMERCE
SAN BERNARDINO MEXICAN-AMERICAN CHAMBER OF COMMERCE
SAN JOSE MEXICAN-AMERICAN CHAMBER OF COMMERCE
SOUTHERN ALAMEDA MEXICAN-AMERICAN CHAMBER OF COMMERCE
STANISLAUS COUNTY MEXICAN-AMERICAN CHAMBER OF COMMERCE
STOCKTN MEXICAN-AMERICAN CHAMBER OF COMMERCE
WOODLAND HISPANIC CHAMBER OF COMMERCE •
U.S. HISPANIC CHAMBER OF COMMERCE
PAT FOLKINS, PRESIDENT EUREKA CHAMBER OF COMMERCE
BLACK BUSINESS ASSOCIATION OF LOS ANGELES
CALIFORNIA FARM BUREAU FEDERATION
CALIFORNIA HIGHWAY USER'S CONFERENCE
CONCERNED ABOUT PETROLEUM
CONSTITUENCY FOR PUBLIC AWARENESS
NAACP: HOLLYWOOD/BEVERLY HILLS CHAPTERS
NAACP: WATTS CHAPTER
NORTHERN CALIFORNIA MARINE ASSOCIATION

C-246405

SOUTHERN CALIFORNIA MARINE ASSOCIATION
REDDING VISITORS AND CONVENTION BUREAU
WESTERN TIMBER ASSOCIATION

SUPERVISOR MARY K. SHELL, KERN COUNTY BOARD OF SUPERVISORS
DEL NORTE COUNTY BOARD OF SUPERVISORS

ROBERT CLARKE, HARBOR MASTER, CRESCENT CITY

SERGIO BANUELOS, PRESIDENT, CALIFORNIA HISPANIC CHAMBER OF COMMERCE

JAMES BAROCCA, EXECUTIVE DIRECTOR AND VICE-PRESIDENT, GREATER VENTURA CHAMBER OF COMMERCE

HECTOR BARRETTO, PRESIDENT, U.S. HISPANIC CHAMBER OF COMMERCE

DALE DUNN, PRESIDENT, HUNTINGTON BEACH CHAMBER OF COMMERCE

JOHN HAY, PRESIDENT AND CEO, CALIFORNIA CHAMBER OF COMMERCE

FRANK M REID, EXECUTIVE VICE-PRESIDENT, FULLERTON CHAMBER OF COMMERCE

LUCIEN D. TRUHILL, PRESIDENT AND CEO, ORANGE COUNTY CHAMBER OF COMMERCE

C-246406 WAGNER, EXECUTIVE DIRECTOR, MONTEBELLO CHAMBER OF COMMERCE

WILLIAM J. WOOD, EXECUTIVE VICE PRESIDENT, SAN BERNARDINO AREA CHAMBER OF COMMERCE

CALAVERAS COUNTY FARM BUREAU

CALIFORNIA FARM BUREAU FEDERATION

EL DORADO COUNTY FARM BUREAU

FRESNO COUNTY FARM BUREAU

KERN COUNTY FARM BUREAU

HUMBOLDT COUNTY FARM BUREAU, DENNIS LEONARDI & SUE SIMON

LOS ANGELES COUNTY FARM BUREAU

RIVERSIDE COUNTY FARM BUREAU

SAN DIEGO COUNTY FARM BUREAU

SAN JOAQUIN COUNTY FARM BUREAU

STANISLAUS COUNTY FARM BUREAU

VENTURA COUNTY FARM BUREAU

YOLO COUNTY FARM BUREAU

WALT STANLEY, REPRESENTATIVE FOR NATIONAL ALLIANCE OF
C-246407 CITIZENS

AUDREY COCHRAN, CONCERNED ABOUT PETROLEUM

AUGUST A. CAIRES, CITY ADMINISTRATOR, CITY OF SHAFTER

GEORGE SCHWEITZER, REPRESENTATIVE, SENIOR CITIZENS

DON ALBRIGHT, EUREKA ECONOMIC DEVELOPMENT CORP.

DAVID NUNEMCAMP, VICE PRESIDENT, CALIFORNIA NICKEL MINING CORP.

GERRY AKERS, REDWOOD FEED AND MILLING

EILEEN HEIDLEBERG, CCEEB

FROM BEVERLY HILLS CA 08-29-85 04:52P PDT
MMMN

BEST COPY AVAILABLE

Senator MURKOWSKI [presiding]. Thank you very much.

I am going to present a question to the witnesses to answer for the record, and I would appreciate a response. It is basically in followup to my question and conversation with Secretary Hodel. Basically, it's a question as to whether or not you would support the concept of leaving the question of proceeding with commercial oil development up to the affected States to resolve if it was combined with a curtailment on the ability of States to stop the exploration process.

In other words, what I'm suggesting is having a systematic uninterrupted OCS leasing schedule, then base the decision on whether or not to proceed on the results of the exploration.

Right now, we have the opposition to the proposed leasing as the criteria for determining whether we go ahead or not, so we never find out whether there are commercial quantities of oil. And, in view of the progress that we have, or lack of progress that we have been making on a systematic exploration program, I am wondering if this other alternative has any merit.

I think you understand the question. If you don't, then say so.

Mr. SIMES. Senator, I believe Ms. Dinkins is probably best qualified to respond to this.

I think there are two points. The first point relates to the present process, which I believe incorporates such a process.

Senator MURKOWSKI. In effect, it does. Ultimately the States can have final veto power. The first step is to take the perception off the reality that we are stopping the leasing process, in effect, because there is a perception that that is where you stop it as opposed to looking at whether or not you can stop development, if indeed you have commercial——

Mr. SIESS. I believe we really have three steps in the process. The first is the step—or perhaps four—where the 5-year plan is approved with comment. Second is the actual leasing step, which allows those leases to move forward.

The third step is the obtaining of the drilling permit, which immediately——

Senator MURKOWSKI. Which the States control. But do you see my point? Even though we all know this, the effort is made to stop the leasing process.

Mr. SIESS. Yes, sir. So I believe we have what you propose, but the perception of it——

Senator MURKOWSKI. How do you turn the perception around if you don't change the rules around?

Mr. SIESS. I'm afraid that if we change the rules we won't have anybody come to the sale. I think the possibility of spending your money to discover oil, only to find that you couldn't proceed through some orderly process to produce it——

Senator MURKOWSKI. You don't think the motivation by the affected States of the revenue would prompt their greed enough to want to participate in the windfall?

Mr. SIMES. The thing is, though, does the State actually share in the revenue?

Senator MURKOWSKI. Sure they do.

Mr. SIMES. Well, in a small proportion. But the thing is——

Senator MURKOWSKI. That's better than no proportion at all.

Mr. Simes. Are we talking about State leasing or Federal leasing?

Senator Murkowski. Federal leasing.

Mr. Siess. Of course, today that is quite a dispute. The funds are still in escrow.

Senator Murkowski. That's true, but that is being addressed and resolved. My point is it's getting tougher and tougher to go ahead with any type of systematic leasing, as evidenced by what the previous Secretaries have attempted to do. And we've got a moratorium facing us right in the eye. We have seen the entire east coast locked up. There's no leasing on the east coast and there's not going to be.

Mr. Siess. Senator, I think the process, which has been described over and over, starts with 6,300 blocks that probably result in maybe 20 or 50 being viable producing blocks if they were all explored. The perception is that we're going to drill all of California. That's not true. And secondarily——

Senator Murkowski. You're not doing anything to change that perception.

Mr. Siess. No, sir, and I don't know that we. I'm afraid that that is an educational process.

Senator Murkowski: If it's an educational process, it is one we are losing on.

I would appreciate those of you who are so inclined to respond to that question in writing. If you need any clarification, the professional staff will be happy to do so.

I'm going to excuse the panel. We've got continuing votes and we are going to recess temporarily until we can find someone else who's going to chair the balance of this hearing. And unfortunately, I have made commitments that began 15 minutes ago and was advised that we would have another Senator here and they are out trying to corral him. Hopefully, he'll be along in a little bit more.

So I'll turn this over to staff, wish you a good day, and thank you for coming.

[Recess.]

The Chairman [presiding]. The committee will come to order.

We have the last two panels yet to be heard: Mr. Brooks Yeager, Mr. Andrew Palmer, Geoffrey Webb, James Wood, and Clair Ghylin. Unfortunately, the schedule on the floor has disrupted our process here, and I apologize for that.

Your prepared statements will be made a part of the record. I will have to ask that you make a very brief summary because we're going to be interrupted again almost immediately and I have another meeting going on at the same time.

Written questions may be submitted to members of the last panel and members of these two panels from other members of the committee, as well as myself. In the interest of time, we will try to expedite in that way.

Mr. Yeager.

STATEMENT OF BROOKS B. YEAGER, WASHINGTON REPRESENTATIVE, THE SIERRA CLUB

Mr. Yeager. Thank you, Mr. Chairman.

I will be very brief and I understand that, with your permission, my written testimony will be put in the record.

The **Chairman**. Yes.

Mr. **Yeager**. I appreciate the committee's invitation to testify today concerning the California OCS agreement. Because of our large membership in California—I don't know if I introduced myself. I am Brooks Yeager with the Sierra Club.

Because of our large membership in the State of California and our long tradition of working to protect the natural resources of that State—in particular, we've always been interested in the outcome of the OCS debate there—we have worked at virtually every administrative level over the years in an effort to promote what we believe was a rational effort at protecting the most fragile and unique parts of that coast and still allowing exploration where that was warranted.

We haven't opposed all offshore development. We have attempted to protect what we view as critical resources of the California and other costs, and I think that our record will support that.

The **Chairman**. That bell indicates I have 7½ minutes to hear all five of you.

Mr. **Yeager**. Well, I'll be even briefer.

We were disappointed that the preliminary California OCS agreement has now unraveled, and we are disappointed that the Secretary of Interior, who we believe—we had hoped would be working toward such an agreement, has been forced to disavow it. In our view, that agreement was a potential vehicle for resolution of a longstanding California OCS controversy.

The **Chairman**. Can I ask this question, Mr. Yeager. Is the question whether or not there will be any development off the coast, or is it a question of where it will occur, or is it a question of how fast it will occur?

Mr. **Yeager**. I think it's a question of where and when and how fast. There is already development in the Federal offshore waters off California. Some of that is in areas that we believe pose potential problems and others are in areas that we have frankly felt are developable areas.

We believe that the moratoria was specifically crafted to protect what we believe are fragile and critical areas, and as a result of that we have supported the moratoria. In a way, we viewed the moratoria as a response to an attempt to lease all of the California coast, which we felt was heedless and done in disregard of important other coastal resources.

[The prepared statement of Mr. Yeager follows:]

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STATEMENT OF BROOKS B. YEAGER

WASHINGTON REPRESENTATIVE

ON BEHALF OF MICHELLE PERRAULT, PRESIDENT

CONCERNING

THE CALIFORNIA OCS AGREEMENT

BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

HONORABLE JAMES A. McCLURE, CHAIRMAN

SEPTEMBER 17, 1985

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." *John Muir*
National Headquarters: 530 Bush Street, San Francisco, California 94108 (415) 981-8634

Mr. Chairman, Members of the Committee,

I appreciate the opportunity to represent the Sierra Club at today's hearing on the agreement over offshore oil development negotiated between the California Congressional delegation and Secretary Hodel. Last week, as you know, Secretary Hodel announced his intention to walk away from this agreement. With that announcement, a potential vehicle for resolving the long-term conflict over California OCS development has been shattered, and the situation, if anything, is worse than it was before the agreement was broached.

Because of our large membership in the State of California, and our long tradition of working to protect that state's many splendid natural resources, we have been particularly interested in the debate over the development of California's OCS. For over a decade, Sierra Club members have joined local officials, the fishing industry, and other citizens groups in efforts to protect the unique and fragile parts of the California Coast from the impacts of offshore drilling and oil and gas production. We have also worked for the protection of other critical areas, including George's Bank off the Massachusetts coast, and Bristol Bay in Alaska.

We have not, as some would have it, opposed any and all offshore oil and gas development. We have sought to protect areas where, in our view, the potential impacts resulting from oil and gas exploration and production pose severe threats to fisheries and other important coastal resources. The potentially devastating impacts of petroleum hydrocarbons in the marine environment are well known — and despite the relative improvement of the oil industry with respect to spills since the Santa Barbara Channel blowout of 1969, the threat of major marine accidents is still an inevitable accompaniment to accelerated OCS development.

As part of our efforts to protect the areas of the California Coast which we considered to be critical, we commented and testified on EISs, including the various 5-year plans, met with local and Congressional leaders, negotiated with state and federal administrators, commented on new federal regulations as they appeared, and testified on local coastal plans.

These efforts, at every available administrative level, were largely rejected by this Administration. Under Secretary Watt's so-called "area-wide leasing" concept, the Interior Department engaged in a virtual crusade to open up the entire OCS, including the whole California Coastline, for accelerated offshore development.

This heedless all-out development push resulted in a series of Congressional moratoria which protected, on a yearly basis, those portions of the Coast which were considered most critical. This steadfast Congressional opposition to the Watt program convinced Secretary Clark to review the issue, and pointed the way to efforts on both sides to come up with a more viable long-term solution. In fact, as part of the last Congressional moratorium, Congress included a specific mandate for negotiations between the Secretary and the delegation to arrive at a more viable program.

In March of this year Secretary Hodel laid out the new draft 5-year OCS Leasing Program. Following comments made by the Secretary at the time of his confirmation, we hoped that the new proposed program would begin the process of identifying environmentally sensitive areas which would be off-limits to leasing, but in this hope we were disappointed. However, Secretary Hodel indicated that negotiations aimed at identifying environmentally sensitive areas would not be precluded by the inclusion of such areas in the draft program.

We agree that annual moratoria are not the most ideal way to fashion national energy or environmental policy. So we had high hopes for the outcome of the July negotiations between Secretary Hodel and the California delegation.

We did have concerns about some of the tracts announced as part of the July 16 agreement. Yet despite those concerns, which we felt involved legitimate and important environmental issues, we stood by the agreement. In our view, the prospect of long-term protection for the great majority of critical coastal areas was of great value.

On July 29, Sierra Club President Perrault met with Secretary Hodel to discuss the California Agreement. We were optimistic the Secretary was going to stand by the major parts of the agreement, while making such minor modifications as were necessary to accommodate the comments received during his visit to California. That was the first time that Secretary Hodel raised to us the issue that the 150 tracts which he had argued should be open for leasing as part of the agreement might not be "high potential" tracts in the view of the oil industry.

Throughout the August meetings in California, Sierra Club members continued to express their concerns that all areas previously covered by the Congressional moratorium were deserving of protection. Yet, the Club did not oppose the agreement. We continued to support the idea of a long-term solution which would protect the most critical areas while allowing some exploration and development to take place.

On September 9, President Perrault spoke with Secretary Hodel again. At that time, he informed us of his intention to notify Congress the next day that he had the wrong 150 tracts. He did not explain why it was that he, and the bureaucracy of the Mineral Management Service which administers the entire OCS program, were unable to identify 150 tracts with adequate development potential after four years of consideration and controversy. He claimed that new information had surfaced during the California meetings which led him to think that the original tracts were inadequate. But Sierra Club members were at every one of the California meetings, and we are not aware of any new geologic information which was presented to the Secretary in any of them.

It appears to us that the oil industry, which has fought this agreement from the very beginning, has finally been successful in defeating it. Secretary Hodel's various excuses and explanations notwithstanding, he has crumbled in the face of an intense lobbying campaign mounted by the industry, and has discarded the only promising effort made in four years to resolve the California OCS controversy. The result is bound to be more controversy, more contention, and more litigation. We do not propose to give away willingly the protections we have fought for so long. We were willing to accept a negotiated compromise. The oil industry is not, and, at the industry's behest, Secretary Hodel has broken the deal which he negotiated with the California delegation.

It is ironic that, even as this Administration presses to open more sensitive areas to an accelerated oil and gas development program whose eventual production must be considered speculative, it is also rolling back the very programs, such as auto fuel economy standards, which could reduce our future reliance on oil generally. This refusal to take the steps which could indefinitely defer the need to drill in sensitive areas, coupled with a heedless disregard for the threats to other resources posed by oil and gas development, makes further confrontation over the OCS almost inevitable.

The **Chairman**. Thank you.

Can I turn to Mr. Palmer. I know this is not fair to any one of you.

STATEMENT OF ANDREW PALMER, WASHINGTON REPRESENTATIVE, ENVIRONMENTAL POLICY INSTITUTE

Mr. **Palmer**. Thank you, Mr. Chairman.

My name is Andrew Palmer. I'm with the Environmental Policy Institute here in Washington, DC., and we have, while not been directly involved in the negotiating process, had a keen interest in the affairs of—the results of the negotiations that have been going on between the Secretary—and we feel that the original agreement, while we didn't endorse each and every aspect of it, did offer some real benefits for the country and for the development of the California OCS.

First, the agreement contained—offered the opportunity to make a long-term settlement of the OCS Leasing Program issues in California, which has been one of the most contentious areas.

And second, the areas to be explored and developed would be known and therefore it would have aided local governments with planning for impacts associated with development.

And third, industry would have benefited by knowing once and for all where they were likely to be allowed to develop and where development was not going to take place, and that if they did lease in those areas they had stronger assurance that they would ultimately be able to develop.

I think, to finish up quite briefly, if the Secretary is to recapture the spirit and trust of the delegation and members of the environmental community, we think that he should begin renegotiating based on the outlines of the agreement announced by the Secretary and the delegation in July.

We think the delegation is ready to talk about changes, but not a wholesale scrapping of the previous 150 tracts. I think the settlement of this would be in good faith and would aid all OCS development.

I think the options if this is not settled is a message to us that we are once again in a state of war, that we are going to have to go back and fight in court the moratorium or other congressional actions, and that litigation once again may be another avenue that we will have to take in order to modify the Leasing Program.

Thank you.

[The prepared statement of Mr. Palmer follows:]

ENVIRONMENTAL POLICY INSTITUTE

TESTIMONY CONCERNING THE CALIFORNIA OCS AGREEMENT

Presented by
Andrew Palmer

on behalf of
THE ENVIRONMENTAL POLICY INSTITUTE

before the
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

September 17, 1985

218 D Street, S.E., Washington, D.C. 20003 (202) 544-2600

We would like to thank the chairman and members of the Committee for this opportunity to address some of the issues surrounding the preliminary agreement on leasing the Outer Continental Shelf (OCS) off the coast of California recently worked out between Secretary Hodel and members of the state's congressional delegation.

The Environmental Policy Institute, a non-profit organization located in Washington, D.C., has had a 13 year history of involvement in the national debates on the development of our offshore oil and gas resources and the protection and enhancement of our economically important marine and coastal environment. We have always recognized the desire of those who wish to develop our offshore oil, gas, and mineral resources and have worked constructively to assure that areas of valuable and fragile marine resources be given the fullest protection possible. In spite of the contentiousness which has characterized the OCS leasing program, especially over the last four years, we still believe that reasonable people can work to create a balanced process which adequately protects sensitive marine and coastal systems and provides sufficient oil and gas needs for the nation's energy economy.

Perhaps in no other state is the collision between the imperative to develop and the need to protect so sharply focused as it is in California. Nor is it ironic that this should be the case, for this is the very state where the singular event credited by many with bringing the environmental movement into the national consciousness occurred -- the Santa Barbara Oil Spill.

While many in the oil industry believe that California's OCS contains the greatest remaining reservoirs of offshore oil, it should not be forgotten that the waters which overlie these pools of hydrocarbons contain as rich and diverse a marine life as found anywhere. Economically important commercial and sport fisheries are found along the entire length of coastline. Endangered, recovering populations of marine mammals such as gray whales and sea lions, elephant seals, and sea otters depend on these waters. Spectacularly scenic stretches of coastline and unspoiled beaches function as magnets to tourists, bringing much needed dollars to numerous coastal communities. In short, the resources California coastline provides a vital portion of the state's economy. These same resources are put at risk by an unconstrained OCS development program such as the one we have experienced over the last four years.

AN OVERVIEW OF CALIFORNIA LEASING MORATORIA

Congress has annually imposed restrictions on leasing federal offshore tracts off the coast of California for the past four years. These moratoria coincided with the introduction of the concept of area-wide leasing of the OCS, initiated under the direction of former Secretary of the Interior James Watt. While the amount of area in California placed under these moratoria has increased over this period of time, it still represents a minuscule amount of the total OCS acreage offered in each year. For instance, the area contained under the current California moratorium represents less that 3.7% of the total OCS acreage being offered under the existing Five-Year Leasing Program. The percentage of estimated recoverable reserves contained in the moratorium areas represents less than 10% of the total estimated OCS reserves. Even if the entire present moratorium area was put off limits for the next ten years, one simply could not argue that this posed a serious threat to our nation's energy security.

Often overlooked in the debate over OCS development is the fact that California already contributes greatly to the nation's oil and gas production. At 1.2 million barrels of oil per day, the state ranks as the number two oil and gas producing state. Over the next five years, predictions are that the production levels from already leased tracts will rise from the current 85 thousand barrels per day to around 600 thousand barrels per day.

There are a number of reasons why the Administration's OCS leasing program has met such stiff opposition in California. First and foremost, it was the demonstrated lack of interest on the part of the Department of Interior to take into consideration and negotiate the concerns of local citizens and state officials which led to the imposition of Congressional moratoria. Had the Department taken a real interest from the beginning in the concerns of citizens of the coastal counties and shown flexibility, and not simply pressed the dogmatic implementation of their OCS leasing program, then it is very likely moratoria would not have been necessary. That any negotiations have taken place to date, including the one reached in July between the Secretary and members of the California delegation, is due entirely to pressure brought to bear on the Department by Congress's continual willingness to impose restrictions. Indeed, the FY 85 conference agreement of OCS moratorium included language which explicitly directed the Secretary to enter into such negotiations.

A second important cause for continued moratoria has been the inadequacy of current law to provide for meaningful state input into pre-leasing decisions. Under Section 19 of the Outer Continental Shelf Leasing Act Amendments (OCSLAA), the Secretary is required to accept the recommendations of the governor of the affected state unless the Secretary finds it is not in the national interest. As a matter of course, recent Secretaries have chosen to ignore state recommendations under this section. Under present law the only standards of review which apply to his decisions are whether they were made in an arbitrary and capricious manner. This has had the practical effect of empowering the Secretary with almost unlimited discretionary powers in his decision making. The result has been seriously limit the ability of states to have a real consultative role.

Thirdly, a Supreme Court decision in January, 1984 did away with a provision which allowed states to require a determination of the consistency of a proposed lease sale with approved coastal zone management programs. The consistency provision of the 1972 Coastal Zone Management Act provided the states with the opportunity to have a strong consultative role with the Secretary with regard to the configuration of a lease sale. Studies by the Department of Commerce show that states used this provision intelligently and that it did foster negotiation and agreement, with over 93% of consistency determinations in which there was dispute being resolved. The net effect of the Court decision was to remove from the states a valuable tool which was used to identify early areas of potential conflict within a proposed lease sale. The loss of the application of consistency to pre-lease decisions may well lead to greater conflict at the exploration and production stages.

It is against this background of weak or non-existent consultative powers that the citizens of California requested that their Congressional delegation seek legislative solutions. Few, if any, ever considered the need for OCS leasing moratoria a desirable way to conduct the nation's OCS leasing program. Neither the creators of the Coastal Zone Management Act nor the authors of the 1978 Amendments to the Outer Continental Shelf Lands Act ever envisioned the need for Congress to be involved in OCS leasing decisions on a year to year basis. The simple fact the Secretary of Interior has negotiated with a congressional delegation over individual tracts to be included in the the next Five-Year Leasing Program is eloquent testimony as to the total breakdown of the consultative process which earlier Congresses had thought they had carefully fashioned.

THE DELEGATION/HODEL AGREEMENT

On July of this year, Secretary Hodel and members of the California delegation who had been negotiating for the past two months announced that they had come to a preliminary agreement. This agreement allows for the leasing of 150 identified tracts in areas previously under moratorium, and the deferral of leasing the remaining acreage under moratorium for 14 years. These tracts were selected from a longer list of tracts which the Minerals Management Service (MMS) had identified as having the best prospects for oil and gas resources. In addition, the agreement allowed for the collection of important geologic drilling data in two other areas, in order that the assessment of resource potential in those areas could go forward. As a unilateral gesture of good faith the delegation agreed to drop moratorium language on the then pending House Interior Appropriations Bill for FY 86. Sadly, the response of the Secretary to this gesture has been to announce that he no longer considers the agreement to be negotiatable.

The Environmental Policy Institute, while not endorsing each and every aspect of the original agreement, nevertheless felt that this represented a reasonable and intelligent balance between assessing and developing oil and gas and protection of fragile and unique marine resources of California OCS. We contended that the agreement contained real benefits for all parties. First, the agreement offered the opportunity to make a long-term settlement of the OCS leasing program in one of the states where it has been most controversial and contentious. On this basis alone there is clear benefit to both the entire nation as well as the citizens of California. Second, knowing which areas would be explored and possibly developed would have aided those local governments with planning for impacts associated with any development. Third, the industry would have benefited by knowing which areas they will be able to develop, avoiding those tracts where litigation and permitting difficulties could cause long delays and ultimately might result in being precluded from eventual development. This would have provided the industry with the type of certainly they often complain they need to make long-range decisions and investments in OCS development.

Unfortunately, we have since found out that the original 150 tracts agreed upon no longer seem acceptable to the Secretary. Even though the data on the resource potential of these tracts was supplied by MMS and was supposed to be the latest available, it now turns out the the Secretary has received "new" information which indicate that these tracts don't have sufficient resource potential. If this is the case then it casts serious doubt on the ability of the Department to be carrying on the leasing program at all. In fact, this is not the first time that this program has experienced difficulty in interpreting data. Two recent reports by the Government Accounting Office raise serious questions both as to the adequacy of the resource data and as to the consequences of the area-wide leasing program on revenue from OCS leasing. The GAO estimates that over $7 billion has been lost to the treasury due to bid deflation caused by area-wide leasing. This raises the question of whether an indefinite moratorium on the entire leasing program is needed pending an assessment of the capability of the Department to conduct it in a responsible manner. This is, in fact, what Congress chose to do when the same Department's Coal Leasing Program was found to be in need of substantial overhaul. The parallels of the failures of the OCS Leasing Program the the Federal Coal Leasing Program may be becoming to strong for Congress to ignore much longer.

FUTURE ACTION

We can not underplay the loss of confidence once again the environmental community has experienced with the Secretary and the Department of Interior. Assurances by the Secretary to members environmental groups shortly after the agreement was announced led us to strongly believe that he would stick to the major provisions of the agreement. Now, sadly, it seems the trust placed in those earlier pronouncements was misplaced.

If the Secretary is to recapture the spirit of trust and respect then we would strongly urge him to immediately resume negotiations based on the outlines of the agreement announced by the Secretary and the delegation in July. It is our understanding that he would be met by a majority of the California delegation willing to make reasonable adjustments of the preliminary agreement, but not a wholesale scrapping of the previous 150 tracts. Settlement in good faith of the California leasing areas is not just important to one state, but effects the entire conduct of the program and its potential benefits for the nation.

If these efforts to resolve the substantial issues surrounding the development of the California OCS fail, then hope for peace in the offshore oil patch will be harder than ever to achieve. For the message to those of us who seek a rational, balanced OCS leasing program will be that we must redouble our efforts to seek modifications in the program through the courts and through Congress. Thus the controversy and delay which has characterized the program in California and in other OCS leasing areas for the past five years will likely get worse before it gets better.

The CHAIRMAN. Thank you.
Mr. Webb.

STATEMENT OF L. GEOFFREY WEBB, WASHINGTON DIRECTOR, FRIENDS OF THE EARTH

Mr. WEBB. Thank you, Mr. Chairman.

Let me just say that on the day before Mr. Hodel left on his California field trip a group of us met with the Secretary to discuss his OCS Leasing Program and specifically the California compromise. He told us then that he was both pleased with the process and with the compromise itself. He said that, while the end product would not have been what he would have written if he were writing it all by himself, that he felt the negotiators arrived at the best deal that they could possibly make.

The Secretary acknowledged that there were environmentally sensitive tracts contained in the compromise and wanted to know whether or not we would litigate on the basis of the tracts that were contained in the 150 package. He expressed his acknowledgment that, of course, they were going to have to follow the law in carrying out the agreement.

But on that basis, he received a pledge from the environmentalists that we would not litigate on the basis of the tracts contained in the compromise. It was something that was very important to the Secretary. He made a very pointed point of securing that from us.

And I asked the Secretary at that time whether he thought that the agreement would be substantially changed in the weeks to come. He reiterated that he thought the agreement was the best that could be reached and, although it was always possible that some tracts might need to be changed after final check, that he felt the substance of the agreement would remain as it was, with some clarifying language on the national emergency release language.

So when I attended the Secretary's press conference last week, I was very surprised. The statements that he was making—that he always had doubts about it, that he never thought this was a particularly good deal, that there really never was a deal—I felt were really at variance with what he had said to us the day before he left for California.

I think, to close, Mr. Chairman, this is indicative of problems across the board in this administration's mineral leasing programs. There are very serious problems with the Coal Program, the Onshore Oil and Gas Program, the Offshore Oil and Gas Program.

I don't think that the administration has recognized and dealt with them as they need to in order for those programs to go forward, and I think we're going to continue to have problems. I think that this unfortunate series of events and the clearly expressed sentiments of the California Senators indicates that we have a clearcut case for a moratorium, unfortunately, this year and fiscal year 1986.

I hope that you'll read our testimony, because it is more substantive.

[The prepared statement of Mr. Webb follows:]

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Statement of L. Geoffrey Webb

Washington Director

Before the Senate Energy and Natural Resources Committee

Hon. James McClure, Chairman

September 17, 1985

On the Department of Interior's

Outer Continental Shelf Leasing Program

Good afternoon, Mr. Chairman. We are here to respond to your request to testify before you today on the matter of offshore oil and gas leasing, particularly pertaining to recent negotiations concerning offshore California leasing. As you know, Mr. Chairman, Friends ot the Earth has had a long involvement in public lands, energy, and coastal issues and has been a strong critic of the current OCS program, as designed by James Watt and Donald Hodel.

The California Agreement

Much has been said in the last couple of weeks, Mr. Chairman, and I'm sure much will be made a part of the hearing record today, of the recently collapsed California OCS agreement. It is our belief that simply put, a negotiation was entered into in good faith, and that a basic agreement was reached.

Congressional negotiators agreed to an end of the four-year moratorium on California OCS leasing and the release of 150 tracts identified by the Deptartment of Interior as having high potential. In return, Secretary Hodel pledged to set aside the remainder of the tracts for 15 years.

Our Meeting with the Secretary

On the day before Mr. Hodel left on his California field trip, a group of us met with the Secretary to discuss his OCS leasing program and the California compromise. He told us then that he was pleased with both the process and the result. He said that while the end product was not what he would have written himself, he thought the negotiators had arrived at the best deal they could possibly make.

The Secretary acknowledged that there were environmentally sensitive tracts in the compromise and wanted to know if we intended to litigate on the basis of the 150 tracts included in the package. The Secretary expressed his understanding that the Department would of course have to follow the law in carrying out the agreement, and he received our pledge that we would not litigate on the basis of the tracts included. This seemed to be a very important point with the Secretary.

I asked the Secretary whether he thought the agreement would be substantially changed in the weeks to come. He reiterated that he thought the agreement was the best that could be reached, and that while it was always possible that some tracts might need to be changed after a final check, he thought the substance of the agreement would remain as it was, with some clarifying language on the national emergency release language.

On the basis of that meeting, I told members of the press that Secretary Hodel had pledged not to significantly alter the agreement if the California delegation did not. We represented the Secretary as having acted in good faith, to our members and to the public.

The About-Face

Going to California, Don Hodel received tremendous attention and publicity. He reaffirmed his commitment to "stand by the agreement" when questions were raised. Editorials lauded the Interior Secretary and he was given a rare, beautiful Ansel Adams print in appreciation for his work.

Now the Secretary says they were the wrong tracts, that MMS didn't have the right information, that there was never any deal, that he has always acted in good faith, that he always had major doubts about the deal. Our members want to know whether the whole thing was a hoax. They cannot believe what they have just seen happen and honestly, Mr. Chairman, at Secretary Hodel's press conference last week, I had a hard time believing what I was hearing.

Imagine if the Soviet Union were to negotiate as Mr. Hodel has, by reaching a tenative agreement and then pulling out at the last minute, insisting that the "agreement" was simply a starting point for new negotiations and demanding many new concessions. This Administration would be outraged, and loudly denounce the Russians for duplicitous bargaining.

While claiming to be headed in the same direction as he was, Mr. Hodel has made an about-face in response to oil company demands.

After the California delegation was willing to compromise, after the Secretary of Interior was seemingly willing to compromise, after we were willing to compromise, the oil companies were not. They said in California that if the absolute best 150 tracts were offered, they would still try to destroy the agreement.

And so they saw to it that the agreement was destroyed, and that the Secretary backed out. I don't think they cared whether Don Hodel lost face or not. It seems to us, Mr. Chairman, that as soon as anyone in this Administration proposes anything approaching fairness and equity in dealing with the oil industry, as with the Treasury I tax proposal, that the initiative is almost immediately squashed.

FY '86 Moratorium

We presume, Mr. Chairman, that you are holding this hearing to help you prepare for markup of the Interior Appropriations bill. Due to this very unfortunate series of events and the clearly-expressed sentiments of California's Senators, a more clear-cut case for moratorium has never been made. Congress must continue the suspension of all California tracts set aside from leasing in previous appropriations bills for the Fiscal Year 1986.

Stop and start leasing does not protect the environment or create a predictable business climate, two desirable goals. We do not and have not supported moratorium as a policy: we support a working program. Complete leasing bans or complete leasing frenzies do not serve the public interest and the existence of these moratoria is evidence that the program is not working.

Across-the-Board Leasing Problems

There is no shortage of tracts available to industry. In fact more than 4,000 tracts already leased to oil companies have never been developed. The excess capacity holdings of offshore public lands is at an historic high under the Watt-Hodel areawide leasing system.

The problems we face are not new or unknown. They seem endemic to the Reagan Administration plan for energy and public resources. The Watt-Hodel approach (which has been the Watt-Hodel approach since 1981, when Don Hodel was in charge of the leasing functions of the agency) has been to radically uproot established government practice in selecting tracts for sale and accepting bids.

Across the board, the environment has been given short shrift and taxpayers have been shorted by hundreds of millions, if not billions of dollars. Virtually the entire regulatory apparatus has been thrown out, and a heavily pro-industry one has been put in its place.

Over the wishes of the Chairman of this Committee, the Congress has seen fit to act against the repeated mineral leasing abuses of this Administration. This Committee refused to acknowledge problems in the coal leasing program and refuses to deal with onshore oil and gas leasing problems. THESE PROGRAMS ARE ALL BROKEN, MR. CHAIRMAN. They need to be fixed. We have been saying so for the past several years and events and investigations continue to bear us out.

Until and unless the Secretary of Interior can come to grips with these basic facts, his department will continue to preside over a polarized, stalemated situation. Little will be accomplished because the joint actions of the Department and the oil industry bear such small relationship to the public interest.

They are simply trying to lease more than industry can possibly develop. By flooding markets, they have depressed prices. The Interior Department often doesn't know just what it is leasing, and therefore cannot adequately protect resources or get the price it should.

This is a giveaway strategy, made famous by Albert Fall and Douglas McKay and James Watt. It does not follow the law and as such is vulnerable to paralyzing lawsuits. If the intent and letter of the law were being followed, no Interior Secretary would fear litigation. As in other areas, the Department's attorneys have undertaken the most extreme and implausible interpretations and have time and again been challenged in court.

If this Committee and the Administration hope to get out from under the rubble of Reagan leasing policy in the time remaining to the Administration, some accomodations will have to be made and some facts faced. All of our major criticisms of the mineral leasing programs have been corroborated. All of the major defenses of the current coal leasing program, the oil and gas lottery and the outer continental shelf "areawide" leasing program have been discredited.

The next move is up to Secretary Hodel.

The CHAIRMAN. I will indeed. And I again apologize for the time. Mr. Wood.

STATEMENT OF P.W.J. WOOD, VICE PRESIDENT, EXPLORATION, EXXON CO., U.S.A., ON BEHALF OF THE AMERICAN PETROLEUM INSTITUTE

Mr. Wood. Thank you, Senator.

I am Jim Wood. I look after the exploration business for Exxon Co. in the United States. I'm one of those people who has to put his money where his mouth is on this subject of offshore development.

Let me add a perspective that I think has already been referred to this morning, and that is the national interest. We know something about the oil business in this country. Our company is keenly aware of the depleting proven reserves in our country, and we are very concerned indeed about the long-term security of America.

As far as we are concerned, the tentative agreement we have been talking about has zero benefit for the oil business. Exxon has broken precedent and gone public with the statement that we would not bid on any one of the 150 tracts that are supposed to be so beautiful. We think they are worthless from what we understand today, and we have never made that kind of statement ahead of a sale in our lives.

Finally, just let me mention, resource estimates are a very hazardous business. I have to do it all the time in getting ready for a sale. I frequently am questioned afterwards, how come you drilled a dry hole on a block you spent $15 million for? So believe me, the resource estimate game is a very uncertain one, and we cannot always be precise when we anticipate how much oil and gas will be found.

We do know, however, that offshore California is one of the oily areas in this country. The hydrocarbon potential in offshore California is very significant and we must have access to it.

[The prepared statement of Mr. Wood follows:]

WRITTEN STATEMENT

on behalf of the

AMERICAN PETROLEUM INSTITUTE

By

P. W. J. Wood
Vice President, Exploration
Exxon Company U.S.A
Houston, Texas

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES
U.S. SENATE

September 17, 1985
Washington, D.C.

Mr. Chairman and members of the Committee:

My Name is P.W.J. Wood. I am vice president for exploration of Exxon Company, U.S.A. I appreciate this opportunity to present the views of the American Petroleum Institute on the need to develop our country's offshore oil and natural gas resources. The API is a national trade association composed of 230 companies of all sizes and about 6,000 individual members. Many of the Institute's members are engaged in offshore oil and gas operations.

Our industry supports the kind of vigorous leasing program that was mandated by the Congress in the Outer Continental Shelf Lands Act Amendments of 1978. We share the belief, stated in that legislation, that the future security and economic well-being of the United States require the discovery and development of this country's offshore oil and natural gas potential in an expeditious and orderly manner, with appropriate environmental safeguards.

The offshore leasing moratoria of the past four years have been a major factor in slowing down U.S. energy progress. To continue such unnecessary restrictions would risk a return to the high import levels of the 1970s when supply disruptions and government price controls led to shortages and, consequently, to serious economic hardships for millions of Americans.

We support the continued orderly development of this country's offshore oil and natural gas resources under the carefully drawn planning procedures provided by the OCS Lands Act Amendments and the Interior Department's five-year lease sale planning process. These procedures were authorized by the Congress and were upheld by the courts. They provide for consultation with the states and all other affected interests and call for balancing the national interest with all other concerns.

Reliance on these procedures will assure that everyone having a legitimate interest is given a chance to participate, and will make it unnecessary to resort to administrative or legislative moratoria on offshore leasing, exploration and production.

It is clear that the national interest would not be served by continuing to ban leasing on a major portion of the federal OCS acreage off the coast of California, whether by congressionally imposed moratoria, negotiated agreement or any other means.

The Fiscal 1985 moratorium imposed by the Congress through the appropriations process closed off about 36 million acres off California -- acres that belong to all the people of the United States, not to Californians alone.

The preliminary agreement announced in July by Secretary of the Interior Donald Hodel and certain members of the California congressional delegation would have kept nearly 98 percent of the acreage locked up until at least the year 2000. That proposal offered the possibility of opening only a few tracts, most of them of dubious potential, for leasing during the remainder of this century -- and even that was not guaranteed.

Government and industry geologists believe this country will have to depend on offshore areas for a major portion of the oil and gas to be produced in the future. They believe the federal waters off California offer this country's best chance to make significant new oil discoveries between now and the year 2000. Every state, whether inland or coastal, has an important stake in the discovery and development of those petroleum supplies in a timely manner. The nation cannot afford to wait until the next international energy emergency arises before starting to search for the oil and gas that would be needed to cope with that crisis. In today's fast-moving world, any energy emergency would have come and gone before new offshore areas could be explored and developed, and the American people would have suffered whatever harmful consequences were involved.

Therefore, we urge the Congress to keep the offshore leasing program moving forward on a reliable schedule, resisting all actions that would reduce U.S. oil and gas production, increase this country's already heavy dependence on foreign oil and exposing American consumers to the hazards involved in supply disruptions.

The United States depends on oil and natural gas for about two-thirds of its energy supplies. So far efforts to develop significant alternative fuel sources have fallen far short of expectations. Since no new fuels are likely to make important contributions in the near future, it makes good economic sense for this country to provide as much of its oil and gas needs as possible from secure domestic sources.

Many of this country's most productive oil and gas fields have been in operation for decades and are rapidly being depleted. Even in the giant Prudhoe Bay field on Alaska's North Slope, more than one-third of the recoverable oil has already been produced. The nation's declining oil and gas fields must be replaced soon if this country is to avoid future declines in domestic production, heavier dependence on foreign oil and increased vulnerability to the economic shocks and security threats that are associated with disruptions in international oil shipments.

This country's proved reserves of oil and natural gas have shrunk by about 30 percent since 1970. Discoveries have lagged far behind consumption, and recent trends indicate that consumption of energy is on the increase again. As the demand for oil rises, U.S. dependence on foreign oil increases, with the possibility that much of the additional imported oil may have to come from the politically unstable Middle East.

Last year, imported oil cost Americans more than one billion dollars every week and accounted for about half of our record foreign trade deficit. The United States is dependent on foreign sources for nearly one-third of its oil supply, and if this country fails to develop its domestic petroleum potential, the level of dependence could rise to 50 percent or more by the mid-1990s.

Studies by the Department of Energy, the Interior Department, the Office of Technology Assessment and other governmental and academic groups say that the nation's best chances of major oil and gas discoveries lie beneath the government lands in the western states and Alaska, and beneath the federally controlled Outer Continental Shelf (OCS).

Some oil company geologists believe that as much as half of this country's future oil and gas production may come from offshore areas. But in the three decades since federal offshore leasing began in 1954, only about 4 percent of the federal OCS has been leased for oil and gas exploration. Only about 2.5 percent of the federal offshore acreage is now under lease, and only about 1 percent of the total is currently producing oil or natural gas.

Despite the slow progress in leasing to date, wells on federal offshore leases now provide more than 11 percent of the oil produced in the United States and about 26 percent of the nation's natural gas output. Federal offshore leases have generated more than $75 billion for the U.S. Treasury in the form of bonuses, rentals and royalties, in addition to income taxes based on petroleum operations. The government is assured of many years of offshore oil and gas royalties based on production from newly discovered reserves.

Time is a crucial factor in finding and developing offshore oil and gas. Under the present system, it takes at least two years to set up a lease sale, even if no lawsuits or other legal barriers slow down the process. After leases are purchased, it may take producers years to find commercially producible deposits of oil and gas. From the time of a sale, it often takes from 8 to 11 years to develop a field, install production equipment and create transportation systems to deliver oil and gas to consumers. In remote, frontier areas and deep water, the time required from lease sale to production may run 15 years or longer. These facts make it clear why the United States cannot afford to wait for another international energy crisis before taking action to accelerate the development of more of its offshore resources.

For many years, the federal government offered only limited portions of the OCS for oil and gas leasing. High costs of offshore operations have always been a limiting factor. In the early years of the offshore leasing program, the industry had not yet developed the technology that today makes it possible to drill and produce with safety and efficiency.

After passage of the OCS Lands Act Amendments of 1978, the government began to broaden its horizons and to prepare an accelerated leasing program. The current five-year leasing schedule grew out of that effort. A new five-year schedule for the years 1986-1991 is now in the formative stage.

The current program has featured the use of an area-wide approach to planning offshore lease offerings for about the past two years. This approach has served the nation much better than the narrow tract-selection process used in previous years. But the program has been slowed down by massive withdrawals of offshore acreage, lawsuits and congressionally imposed moratoria on the leasing of certain areas. These delays have cost the United States heavily in terms of oil and gas production, jobs and economic growth. Further delays will jeopardize this country's national security and economic strength by increasing U.S. dependence on imported oil and by making America more vulnerable to costly international supply disruptions like those of the 1970s.

Moratoria have been an obstacle to offshore energy development for the past four years. In Fiscal 1983, the ban affected a little more than 700,000 acres. By Fiscal 1984 the figure had grown to 53 million acres, and in the current fiscal year, the total is more than 45 million acres, including some 36 million acres of federal submerged lands off California.

The House of Representatives has approved a Fiscal 1986 appropriations bill for the Interior Department that continues the existing moratorium on portions of the North Atlantic off New England. The California OCS moratorium was dropped from that bill because of the preliminary agreement between Secretary Hodel and certain members of the California delegation.

Since then, Secretary Hodel has become convinced that the terms of that preliminary agreement are not in the national interest, and he has offered to continue negotiations in an effort to seek a consensus regarding leasing in federal waters off California.

Some House members have announced that they will try to write the terms of the preliminary agreement into law or, failing that, to reimpose a one-year moratorium on the federal waters off California.

We hope those efforts will fail in the House of Representatives. However, if they should succeed, we hope the

Senate will stand fast in support of the kind of orderly planning and leasing program mandated in the OCSLAA. That program can enhance this country's energy supply and protect American consumers against overdependence on foreign sources of oil.

Officials of some other coastal states have a valid point when they say that the federal waters off California do not belong to California, and, therefore, a small group of California lawmakers have no right to bargain away energy resources that belong to all the people of the United States.

Any agreement arrived at in private negotiations with any single faction or small group of factions would violate both the spirit and the letter of the law. Clearly, all parties having a legitimate interest in the proper use of the nation's offshore lands have a right to participate in decisions affecting those areas. Therefore, such discussions should include all members of the California congressional delegation, state and local government officials of that state, lawmakers and officials of other states, environmentalists, spokesmen for fishing and tourism, the petroleum industry, other offshore industries, business leaders and the general public.

Any agreement that results in the continued lock-up of a major portion of the oil and gas potential in any offshore area would endanger the nation's economy and energy security.

Offshore petroleum activities are strictly controlled by a number of federal laws and regulations and are subject to approval by the appropriate authorities in coastal states. Experience has proved that offshore oil and gas resources can be discovered, developed and produced in an environmentally safe manner.

The OCS Lands Act Amendments specify that all regions of the United States should share equitably in the benefits and burdens of offshore oil and gas development, but that has not happened. Government statistics show that the federal waters in the Gulf of Mexico produce 92 percent of the nation's OCS oil and 99 percent of the OCS natural gas. Less than 2 percent of the federal acreage off California is currently under lease. Wells on those leases account for 8 percent of the nation's OCS oil production and less than 1 percent of the OCS natural gas production. When both onshore and offshore production are combined, California falls far short of meeting its own oil and natural gas requirements.

It is appropriate to note that the few areas that have been leased off the California coast are proving to contain highly significant amounts of petroleum. In fact, the Energy Information Administration has just reported that California was "the major bright spot" in new-field oil discoveries during 1984. California accounted for 54 percent of all the new-field oil discoveries in the nation, and nearly 95 percent of those California discoveries were in offshore waters. This indicates that further exploration off the Pacific Coast might do much to strengthen this country's energy position and improve our trade deficit outlook.

Many public officials and private citizens have spoken out in recent weeks against locking up vast offshore areas for a long periods of time.

For example, Secretary of Energy John S. Herrington has said "We cannot continue to lock up our oil and gas resources, either onshore or offshore. America needs this oil and further dependence on foreign sources must be avoided. Locking up our energy resources for 15 years does not lead to our nation's long-term energy security and strength."

Eleven California congressmen have written to President Reagan to voice their opposition to the preliminary agreement. Representative William Dannemeyer, speaking for that group, pointed out that this is not only an energy issue, but also a jobs issue. He said, "Employment in oilfield services and manufacturing has dropped one-third since 1982, with the Outer Continental Shelf moratoria a major contributing factor. The agreement will continue this adverse effect for the next 15 years. Small businesses will be hurt the most."

In addition, 25 members of the California State Assembly signed a letter to Secretary Hodel on August 19, urging him to reject the preliminary agreement and pointing out the economic damage that would be done to California and the rest of the nation if the offshore ban is continued until the year 2000.

Many Californians testified in favor of orderly offshore leasing with adequate environmental safeguards, during a series of public meetings held by Secretary Hodel during the last two weeks of August. They included spokesmen for farm groups, senior citizens, minority groups, recreation organizations, tourist interests, fisheries and people from other walks of life.

At those California public meetings, oil industry spokesmen advised Secretary Hodel that the few tracts suggested for leasing would likely contain only a small percentage of the oil and gas potential of the federal waters off California.

The industry witnesses emphasized the excellent environmental record of offshore drilling and production and urged that the Interior Department follow the orderly planning process set up under the existing law, using five-year timetables and the area-wide planning approach.

A recent analysis by the American Petroleum Insititute concluded that a 15-year ban on most of the areas off the

California coast would have significant negative effects on the nation's economy and national security.

Although the amount of petroleum that would be placed off limits under the preliminary agreement is uncertain, the API study said it could total as much as five billion barrels or more, an amount equal to approximately 18 percent of today's proved reserves.

Several factors of geologic favorability were discussed in the study which illustrate just how important the California OCS frontier may be for our national energy future. These factors include: the discovery of over 2 billion barrels of new crude oil reserves in the last four years offshore California; the presence of the same types of geologic formations (the Monterey Miocene shales) which have been proven to be so prolific in the five geologic basins offshore central and northern California; and the 13 successful (but not commercial) discoveries that were made in these basins in the mid-1960's -- the last time industry had the opportunity to lease and to evaluate these areas.

Denying the nation access to such major new sources of oil would increase American dependence on foreign oil. That, in turn, would cause upward pressure on world petroleum prices to occur sooner and to be greater than would otherwise be the case.

The negative effects of such a ban would be felt in all 50 states. Inland states such as Illinois, Indiana, Michigan, Ohio and Pennsylvania would be particularly hard hit because they supply a large portion of the industrial goods that directly and indirectly support offshore oil and gas operations. Those five states alone stand to lose as many as 35,000 jobs associated with offshore development. By contrast, further development of submerged federal lands off California could create as many as 250,000 jobs throughout the nation.

Another study, conducted for API by Battelle, Pacific Northwest Laboratories and Data Resources, Inc., also concluded that accelerated drilling and development on the Outer Continental Shelf could produce widespread economic benefits across the nation. Over a 10-year period, such a program could result in creating nearly a million new jobs, increasing the gross national product by 2 percent and reducing the federal deficit by 25 percent. In addition to gains in industries that are major suppliers to offshore operators, that study indicated that sizeable gains could be expected also in such industries as wholesale and retail trade, banking, insurance and advertising.

A third study, conducted by the Independent Petroleum Association of America, documented the fact that employment in the petroleum industry plays an important role in the economy of California.

A survey conducted by the National Ocean Industries Association in mid-August found that the 37 offshore service and supply companies polled have reduced their California employment by 55 percent since 1980. Collectively, those companies have laid off or moved out of California more than 12,000 people, chiefly because of the lack of offshore leasing and development. Many of the companies, particularly the smaller firms, said the tentative agreement between Secretary Hodel and some members of the California delegation would put them out of business.

These are just a few indications of the benefits that can be expected if offshore leasing and development are allowed to proceed in an orderly manner -- or, conversely, the serious damage that can be done by closing down most of offshore California until the next century.

In conclusion, Mr. Chairman and members of the Committee, let me emphasize that continued obstacles to careful development of this country's offshore oil and gas resources are neither necessary nor justifiable. At a time of continued unrest in the Middle East, it is not in the best interest of the United States to make it more difficult to find and produce oil and gas here at home.

The nation needs assured, secure domestic reserves of oil and natural gas now, and it will need them even more in the years ahead.

The American people and their government need to know how much oil and gas can be found and produced from offshore areas. They need to know how quickly those supplies can be delivered to consumers. The nation needs this information now -- not some time in the 21st century.

Without adequate energy supplies from secure domestic sources, current and future generations of Americans will be increasingly vulnerable to economic hardships and security threats far more dangerous than those of the past.

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The Chairman. Mr. Ghylin.

STATEMENT OF CLAIR GHYLIN, GENERAL MANAGER, LAND, WESTERN DIVISION, CHEVRON U.S.A. INC., ON BEHALF OF THE WESTERN OIL & GAS ASSOCIATION

Mr. Ghylin. Senator, I represent the Western Oil & Gas Association, and we have testified at congressional hearings over the last 4 years on the issues of moratorium, and not too successfully.

When we started there were 700 acres in fiscal 1982 withdrawn, and by 1983 it had gone to 36 million, then to 53 million, and still about 45 million acres in moratorium status, about 85 percent of the California coastline. And our position hasn't changed. We still have serious objections to the moratoria concept.

We think Congress is thwarting its own mandate to expedite energy development, energy security, and it has serious consequences to the balance of trade, Federal deficit, employment, national security, and the other issues on which the other witnesses have testified.

I would like to limit my oral comments to just responses to a couple of issues that have been raised by previous witnesses, and to point out that in my written statement there is an addendum that lists witnesses who have appeared at prior hearings. It includes representatives of hundreds of thousands of Californians who are supportive of offshore development.

I think that the Secretary's public hearing exercise in California this past month had a significant effect. It probably wasn't one any of us expected. I think what it did do is concentrated and focused the opposition to offshore development and made the Secretary realize, as he indicated this morning, and many others, that there are no environmental concerns that cannot be adequately protected at most of the California offshore areas.

What we heard was that there was one concern that he could not address and that others have not addressed, and that is the concern of visual impact or viewshed or whatever word you want to use for it. I think now that we have isolated and identified that concern, that it is a real problem and that we should not pass it off lightly, because it is the problem behind the political problem.

In our experiences in the urban areas of southern California and our offshore experience in the Long Beach-Wilmington field, we found out that effective camouflaging does significantly reduce opposition. And I think the Secretary should exert a great degree of research and effort into finding some way, some beautification program.

When the President was in Santa Barbara a couple of weeks ago, he was interviewed by the press and asked his view of the beauty of offshore platforms, and he said that perhaps if we parked the mothball fleet in front of the platforms everyone would think they were beautiful.

I'm not advocating that kind of a beautification program, but I think we do have to plan pretty platforms and I think they have to be imaginative and innovative.

Finally, I'd just like to respond to Senator Murkowski's concern about State and local level approval of plans of development. Let me say that in California the California Coastal Commission exercises complete and extensive authority over all parts of the plans of development, including air quality and water quality.

Thank you.

[The prepared statement of Mr. Ghylin follows:]

STATEMENT BY
CLAIR GHYLIN
CHEVRON U.S.A. INC.

FOR THE
WESTERN OIL AND GAS ASSOCIATION

BEFORE THE
SENATE ENERGY COMMITTEE
UNITED STATES SENATE

WASHINGTON, D.C.
SEPTEMBER 17, 1985

MR. CHAIRMAN:

MY NAME IS CLAIR GHYLIN. I AM GENERAL MANAGER OF THE LAND DEPARTMENT FOR CHEVRON U.S.A. INC. IN ITS WESTERN REGION WHICH INCLUDES THE OUTER CONTINENTAL SHELF OFF CALIFORNIA AND ALASKA. I AM HERE TODAY REPRESENTING THE WESTERN OIL AND GAS ASSOCIATION.

ITS MEMBERSHIP CONSISTS OF COMPANIES ENGAGED IN ALL ASPECTS OF THE PETROLEUM INDUSTRY IN CALIFORNIA, ARIZONA, NEVADA, OREGON, WASHINGTON, ALASKA, AND HAWAII. ITS MEMBERS ARE ACTIVE IN OIL AND GAS EXPLORATION, PRODUCTION, AND LEASING ON THE FEDERAL OUTER CONTINENTAL SHELF (OCS) AND THE SUBMERGED LANDS OFF CALIFORNIA AND ALASKA.

REPRESENTATIVES OF WOGA HAVE APPEARED BEFORE CONGRESSIONAL SUBCOMMITTEES IN THE RECENT PAST TO EXPRESS OUR OPPOSITION TO THE ATTACHMENT OF OCS LEASING MORATORIUM RIDERS TO THE ANNUAL INTERIOR APPPOPPIATIONS LEGISLATION. UNFORTUNATELY OVER OUR OBJECTION FOR FOUR CONSECUTIVE YEARS MORATORIUM RIDERS HAVE BEEN APPROVED TO PROHIBIT LEASING ON LARGE SEGMENTS OF THE OCS--700,000 ACRES IN FISCAL YEAR (FY) 1982, 36 MILLION ACRES IN FY 1983, 53 MILLION ACRES IN FY 1984, AND 45 MILLION ACRES IN FY 1985. THESE EXCLUSIONS NOW COVER SOME 85% OF THE OCS ALONG THE CALIFORNIA COAST AND INCLUDE SOME OF THE MOST PROMISING AREAS FOR FINDING NEW OIL AND GAS RESERVES. DURING LAST YEAR'S

DELIBERATIONS. WE WERE ENCOURAGED THAT THE HOUSE/SENATE CONFERENCE COMMITTEE SAW FIT TO INCLUDE LANGUAGE IN ITS REPORT STATING THAT HENCEFORTH "BLANKET MORATORIA" SHOULD NOT BE LEGISLATED AS APPROPRIATIONS RIDERS "UNLESS A CASE CAN BE MADE THAT THE PRELEASE NEGOTIATIONS WITH THE DEPARTMENT OF THE INTERIOR ARE INADEQUATE TO ENSURE THAT ALL RESOURCE VALUES AND DEPARTMENT OF DEFENSE NEEDS ARE PROVIDED PROPER CONSIDERATION AND PROTECTION IN SPECIFIC AREAS."

LET ME NOW DIRECT OUR COMMENTS TO THE LEASING MORATORIA ISSUE ITSELF. WE BELIEVE FOR SEVERAL REASONS, THAT IT IS POOR PUBLIC POLICY FOR THE CONGRESS TO IMPOSE BLANKET MORATORIA ON LEASING OF THE FEDERAL OCS. TO BEGIN WITH, IT IS IMPORTANT TO RECOGNIZE THAT THE OCS LANDS ACT AMENDMENTS (OCSLAA) OF 1978 WERE DESIGNED TO PROVIDE MECHANISMS TO RESOLVE ALL CONTROVERSIES RELATIVE TO OCS DEVELOPMENT. THE FIRST STATED PURPOSE OF THE ENACTED AMENDMENTS IS TO "ESTABLISH POLICIES AND PROCEDURES FOR MANAGING THE OIL AND NATURAL GAS RESOURCE OF THE OUTER CONTINENTAL SHELF WHICH ARE INTENDED TO RESULT IN EXPEDITED EXPLORATION AND DEVELOPMENT OF THE OUTER CONTINENTAL SHELF IN ORDER TO ACHIEVE NATIONAL ECONOMIC AND ENERGY POLICY GOALS, ASSURE NATIONAL SECURITY, REDUCE DEPENDENCE ON FOREIGN SOURCES, AND MAINTAIN A FAVORABLE BALANCE OF PAYMENTS IN WORLD TRADE."

WE BELIEVE THE REASONS FOR SUPPORTING OCS LEASING AND DEVELOPMENT ARE AS VALID TODAY AS WHEN CONGRESS MANDATED IN 1978

THE EXPEDITIOUS AND ORDERLY DEVELOPMENT OF THE OCS. MORATORIA DIRECTLY CONTRADICT THE NATIONAL POLICY DECLARED BY CONGRESS SEVEN YEARS AGO. THROUGH THESE ONE YEAR MORATORIA, CONGRESS IS THWARTING ITS OWN MANDATE AND IS SERIOUSLY LIMITING OFFSHORE FRONTIER EXPLORATION WITH SERIOUS CONSEQUENCES TO (1) OUR NATIONAL SECURITY, (2) FUTURE ENERGY SUPPLIES, (3) BALANCE OF TRADE, (4) FEDERAL DEFICIT, AND (5) EMPLOYMENT.

THE OCSLAA WERE ADOPTED IN THE AFTERMATH TO THE 1974 MIDDLE EAST OIL EMBARGO AND THE ENSUING PETROLEUM SHORTAGES. THESE SHORTAGES JOLTED OUR COUNTRY INTO A BELATED RECOGNITION OF A LONG DEVELOPING DOMESTIC ENERGY CRUNCH. THE CURRENT GLOBAL OVER SUPPLY OF CRUDE OIL MAY BE CREATING A DANGEROUS AND FALSE SENSE OF SECURITY IN OUR NATION TODAY. WE MUST BE CONCERNED ABOUT OUR CONTINUED DEPENDENCE ON FOREIGN IMPORTS. THE U.S. IS STILL IMPORTING ABOUT ONE-THIRD OF THE OIL IT CONSUMES, APPROXIMATELY THE SAME LEVEL WHICH EXISTED AT THE TIME OF THE ARAB EMBARGO. GRANTED, AS A NATION, WE ARE LESS RELIANT UPON THE MIDDLE EAST, DUE TO INCREASED IMPORTS FROM NON-OPEC PRODUCING COUNTRIES LIKE MEXICO. NONETHELESS, THE FREE WORLD IN ITS ENTIRETY REMAINS HEAVILY DEPENDENT UPON THE MIDDLE EAST; AND, BECAUSE OF THIS NATION'S TRADING, DEFENSE, AND ENERGY AGREEMENTS WITH OTHER NON-COMMUNIST NATIONS, A MIDDLE EAST SUPPLY DISRUPTION WOULD BE FELT HERE IN THE U.S.

AT THE SAME TIME, OUR DOMESTIC RESERVE BASE CONTINUES TO

DECLINE--WE ARE CONSUMING MORE OIL AND GAS THAN WE ARE FINDING. IN SHORT, WE ARE LIVING OFF OUR RESERVES.

BASED ON TODAY'S CONSUMPTION RATE, OUR INDUSTRY MUST FIND AN AVERAGE OF MORE THAN 8-1/2 MILLION NEW BARRELS OF OIL EVERY DAY IN THE UNITED STATES--A TOTAL OF ABOUT 32 BILLION BARRELS IN THE NEXT TEN YEARS (MORE THAN TODAY'S PROVEN RESERVES) JUST TO REPLACE THE DOMESTIC CRUDE WE WILL BE USING OVER THAT SAME PERIOD.

IN 1990, JUST FIVE YEARS FROM NOW, NEARLY ONE-FIFTH OF TOTAL DOMESTIC OIL PRODUCTION WILL HAVE TO COME FROM NEW DISCOVERIES TO MAINTAIN PRODUCTION AT CURRENT LEVELS. IT'S ALREADY TOO LATE TO BEING TO FIND, DEVELOP, AND PRODUCE THE OIL NEEDED TO MAINTAIN PRODUCTION LEVELS. INCREASED OIL IMPORTS BY 1990 ARE A CERTAINTY.

BY THE YEAR 2000, MORE THAN ONE-HALF OF THE TOTAL DOMESTIC PRODUCTION WILL HAVE TO COME FROM NEW DISCOVERIES TO MAINTAIN CURRENT DOMESTIC PRODUCTION LEVELS. IF WE ARE TO HAVE ANY CHANCE OF ACCOMPLISHING THAT GOAL--AND LIMITING OIL IMPORTS--WE HAVE TO BEGIN THE PROCESS NOW!

IF THE INDUSTRY IS TO SUCCEED IN THIS EFFORT, IT MUST HAVE ACCESS TO THE LANDS WITH THE HIGHEST OIL POTENTIAL. WE BELIEVE THESE LANDS ARE OFFSHORE, NOTWITHSTANDING THE RECENT

ANNOUNCEMENT OF THE DEPARTMENT OF THE INTERIOR THAT IT REDUCED ITS ESTIMATES OF PETROLEUM RESERVES THAT REMAIN TO BE DISCOVERED IN THE OUTER CONTINENTAL SHELF.

ALSO, ASSESSMENT OF THIS PETROLEUM RESOURCE OFFSHORE IS CRITICAL TO OUR FUTURE ENERGY PLANNING. WE NEED TO KNOW IF THE OFFSHORE CONTAINS THE SUBSTANTIAL VOLUMES OF NEW RESOURCES THAT ARE NEEDED. THIS KNOWLEDGE WILL LARGELY INFLUENCE THE COURSE ENERGY DEVELOPMENT MUST TAKE IN OUR COUNTRY, AND THE SOONER IT'S AVAILABLE THE BETTER.

FURTHER, WE WISH TO EMPHASIZE THE IMPORTANCE OF MOVING FORWARD NOW WITH OUR EVALUATION OF THE OFFSHORE. LEASING TODAY DOES NOT MEAN CRUDE OIL PRODUCTION TODAY. IN OFFSHORE FRONTIER AREAS, WE ARE TALKING ABOUT TYPICAL LEAD TIMES OF AT LEAST TEN YEARS BETWEEN THE LEASE SALE AND FIRST PRODUCTION IF AN ECONOMICALLY RECOVERABLE RESERVE IS IDENTIFIED DURING THE EXPLORATION EFFORT. THEREFORE, LEASE SALES BEING DISCUSSED NOW ADDRESS PETROLEUM RESERVES WHICH WOULD NOT BE AVAILABLE FOR PRODUCTION UNTIL THE 1990S. THIS IS WHY THE LEASING OF THE OCS OVER THE NEXT FEW YEARS IS OF SUCH CRITICAL IMPORTANCE TO THE NATION. TODAY'S DECISIONS WILL DETERMINE HOW OUR RAPIDLY DEPLETING DOMESTIC OIL AND GAS SUPPLIES WILL BE REPLACED
--BY NEW DOMESTIC RESERVES OR BY IMPORTS. NO OTHER CHOICE IS ENVISIONED FOR THE BALANCE OF THE CENTURY.

In 1984, the U.S. posted its worst trading year in history with a trade deficit of $123.3 billion. That nearly doubled the old record of $69.4 billion set in 1983 and was almost three times the 1982 level of $42.7 billion. While foreigners are purchasing fewer American made products because of the strength of the dollar, the U.S. continues to import millions of barrels of crude oil. In 1984, $38 billion were drained from the U.S. economy to purchase crude oil and petroleum derivatives. This represents over thirty percent of the entire 1984 trade deficit.

The OCS provides an important source of revenue to the U.S. Treasury, second only to Federal Income Tax receipts. Bonuses from OCS leasing and royalty on the 5 billion barrels of crude oil and the 60 trillion cubic feet of natural gas produced from the OCS to date have provided the Treasury with nearly $75 billion. During the past 5 years, these payments have averaged about $8 billion per year. When OCS sales are delayed, both production and the revenues associated with that production are delayed. As a result, the Federal Government is denied substantial revenue in the form of bonuses, rentals, and royalties from the OCS, OCS revenues that are needed to help balance the Federal budget. In addition, the oil and gas industry, including the related service companies, pay significant amounts to the Federal Government for income tax, and for excise taxes and fees directly attributable to OCS energy production.

OCS MORATORIA HAVE A NEGATIVE IMPACT ON JOBS. WHEN AN OCS SALE IS DELAYED, IT DELAYS A SIGNIFICANT NUMBER OF JOBS WHICH COULD HAVE BEEN CREATED BY THE LEASE SALE. OCS EXPLORATION EMPLOYS MODEST NUMBERS OF PEOPLE INITIALLY. HOWEVER, WITH DEVELOPMENT OF DISCOVERIES, MANY NEW DIRECT JOBS AND MANY MORE INDIRECT JOBS CAN BE CREATED. THESE JOBS ARE DISTRIBUTED NATIONWIDE AND ARE NOT JUST IN ADJACENT COASTAL STATES.

WE READILY IDENTIFY BENEFITS WHICH WOULD ACCRUE FROM INCREASED OCS ACTIVITY. IN CONTRAST, WE BELIEVE THERE ARE NO OVERRIDING ADVERSE EFFECTS FROM OCS ACTIVITY WHICH JUSTIFY LEASING MORATORIA. MUCH OF THE OPPOSITION TO OCS LEASING IS BASED UPON FEARS -- FEAR OF POSSIBLE REDUCTION IN TOURISM, REDUCTION IN FISH CATCHES, PERMANENT ENVIRONMENTAL DAMAGE, AND INTERFERENCE WITH DEPARTMENT OF DEFENSE ACTIVITIES. THE FACTS, HOWEVER, DO NOT SUPPORT THESE CONCERNS.

THOSE WHO CLAIM THAT OCS LEASING AND DEVELOPMENT WILL ADVERSELY AFFECT COMMERCIAL AND SPORT FISHING HAVE FAILED TO EXAMINE THE FINE RECORD IN THE GULF OF MEXICO WHERE FISHING AND OFFSHORE OPERATIONS COEXIST. SPORT FISHING AT RIGS AND PLATFORMS IS A VERY POPULAR ACTIVITY IN THE GULF. STATISTICAL CATCH DATA SHOW THAT DRILLING FOR AND PRODUCING OIL AND GAS HAS NOT ADVERSELY AFFECTED THE GULF'S COMMERCIAL FISHING INDUSTRY. THE PLATFORMS BECOME ARTIFICIAL REEFS PROVIDING FOOD, HABITATS, AND PROTECTION FROM PREDATORS FOR LARGE NUMBERS AND VARIETIES OF FISH AND

SHELLFISH.

THAT BRINGS US TO THE QUESTION OF ENVIRONMENTAL CONCERNS. THE FACTS SHOW THAT OCS DEVELOPMENT IS ONE OF THE MOST ENVIRONMENTALLY SAFE MEANS OF SUPPLYING OUR NATION'S ENERGY NEEDS. HISTORICALLY, OFFSHORE OIL AND GAS OPERATIONS HAVE BEEN A MINOR SOURCE OF PETROLEUM HYDROCARBONS ENTERING THE MARINE ENVIRONMENT. DATA COMPILED BY THE NATIONAL ACADEMY OF SCIENCES SHOW THAT ONLY ABOUT 1.6 PERCENT OF THE OIL POLLUTION IN THE WORLD'S OCEANS COMES FROM OFFSHORE PRODUCTION. NATURAL MARINE SEEPS, SUCH AS THOSE AT COAL OIL POINT NEAR SANTA BARBARA, ACCOUNT FOR 6.2 PERCENT OF THE OIL RELEASED INTO THE OCEAN--ALMOST FOUR TIMES THE AMOUNT ATTRIBUTED TO OCS ACTIVITIES. TRANSPORTATION BY TANKERS AND BARGES, MUCH OF IT IN IMPORT TRADE, IS RESPONSIBLE FOR ALMOST HALF OF WORLDWIDE OIL POLLUTION.

IT IS IMPORTANT TO NOTE THAT ANY OIL DISCOVERED IN THE OCS WILL REPLACE THAT PRESENTLY ENTERING THE UNITED STATES VIA TANKERS TRANSPORTING FOREIGN CRUDE. THUS, THE RISK TO AMERICAN BEACHES AND OCEANS WILL BE SIGNIFICANTLY LESSENED BY FURTHER DEVELOPMENT OF OUR OWN OCS RESOURCES.

THE OIL SPILL RECORD IN UNITED STATES OCS OPERATIONS IS EXCELLENT AND CONTINUES TO IMPROVE. THE MINERALS MANAGEMENT SERVICES (MMS) ATTRIBUTES ONLY A TINY FRACTION--ABOUT 5/100THS

OF 1 PERCENT--OF THE OIL CONTAINED IN THE WORLD'S OCEANS TO FEDERAL OCS OPERATIONS (INCLUDING DRILLING, PRODUCTION, PIPELINES, AND TRANSPORTATION TO SHORE). IN FACT, IN THE ENTIRE HISTORY OF THE PROGRAM, THERE HAVE BEEN ONLY FIVE SPILLS EXCEEDING 10,000 BARRELS THAT RESULTED FROM OCS OIL AND GAS DEVELOPMENT. IN ONLY ONE CASE HAS A SIGNIFICANT AMOUNT OF OIL FROM AN OFFSHORE SPILL EVER REACHED SHORE--ONE WELL OUT OF OVER 26,000 WELLS DRILLED. THAT SPILL OCCURRED IN SANTA BARBARA IN JANUARY 1969; AND EVEN IN THAT INSTANCE, SCIENTIFIC STUDIES HAVE FOUND NO PERSISTENT OR LONG-TERM ADVERSE ENVIRONMENTAL EFFECTS.

IMPROVED TECHNOLOGY, EQUIPMENT AND TRAINING, MORE STRINGENT ENFORCEMENT OF SAFETY AND OPERATING REGULATIONS, AND A GREATER KNOWLEDGE OF AND RESPECT OF ENVIRONMENTAL CONDITIONS HAVE ALL COME ABOUT SINCE THE 1969 SANTA BARBARA SPILL. WE NOW HAVE MORE SOPHISTICATED EQUIPMENT AND PROCEDURES, AND WE'RE FAR BETTER EQUIPPED TO RESPOND PROMPTLY IN THE UNLIKELY EVENT OF A SPILL. IN SHORT, THE ENVIRONMENTAL RISKS OF OFFSHORE DEVELOPMENT HAVE NEVER BEEN GREAT AND ARE NOW VERY LOW INDEED.

LET ME TURN NOW TO CALIFORNIA AND THE PACIFIC OCS IN PARTICULAR. THE FIRST PACIFIC FEDERAL OCS SALE IN 1963 COVERED PORTIONS OF CENTRAL AND NORTHERN OFFSHORE CALIFORNIA, FROM POINT CONCEPTION TO THE OREGON BORDER. A NUMBER OF HYDROCARBON SHOWS WERE ENCOUNTERED, BUT NO COMMERCIAL PRODUCTION RESULTED.

The only lease sale, to date, involving the Washington and Oregon OCS was held in 1964. Twelve wells were drilled without a commercial discovery. The first lease sale in the offshore Southern California area--that is, from Point Conception to the Mexican border, was held in 1968. This, and subsequent lease sales in the central and southern offshore California areas have resulted in several significant discoveries.

In the southern area, production has been underway for several years in the Santa Barbara channel area and from Shell's Beta Field off Long Beach. In the central area, major discoveries in the Santa Maria Basin near Point Arguello have been announced by several companies.

But significant oil and gas prospects have remained untested as litigation, Congressional leasing moratoria, and extensive deletion of high potential tracts from lease sales have constrained exploration. Since the present 5-year OCS leasing program was initiated in 1982, the entire central and northern California OCS--some 35 million acres--has been withdrawn from leasing each year by Congressional moratoria. Congressional moratoria have also blocked leasing of key prospective acreage in the Southern California area.

Almost all of the Inner Basins off the coast of Southern California have been closed to leasing. These Inner Basins are

LOCATED NEXT TO ONSHORE FIELDS WHICH CONTAINED ALMOST 6 BILLION BARRELS OF OIL, MOST OF WHICH HAS ALREADY BEEN PRODUCED. THESE INNER BASINS COULD PRODUCE 2 BILLION BARRELS OR MORE OF OIL, ACCORDING TO USGS ESTIMATES.

OR LOOK NORTH OF THE RECENT SANTA MARIA/POINT ARGUELLO DISCOVERIES. LEASING WITHIN FIVE SEDIMENTARY BASINS OFF THE CENTRAL AND NORTHERN CALIFORNIA COAST IS PROHIBITED BY THE CURRENT INTERIOR APPROPRIATIONS BILL. FOUR OF THESE BASINS CONTAIN ONE FORMATION THAT WILL PRODUCE ONE BILLION BARRELS ONSHORE, BUT REMAINS UNTESTED OFFSHORE. THESE BASINS BECOME RELATIVELY MORE IMPORTANT IN VIEW OF THE RECENT INTERIOR ESTIMATES DRASTICALLY REDUCING THE RESERVE ESTIMATES FOR THE ALASKA AND EAST COAST OFFSHORE AREAS.

OUR CRITICS SAY WE ARE MOVING TOO FAST OFF THE WEST COAST, BUT CONSIDER THE FACTS. AT ANY ONE TIME, THERE HAVE NEVER BEEN MORE THAN 12 MOBILE RIGS ON THE WEST COAST. THERE ARE CURRENTLY ABOUT 210 MOBILE RIGS OPERATING IN THE GULF OF MEXICO. LOOK AT THE FOLLOWING DATA COMPILED RELATIVE TO PACIFIC OCS EXPLORATORY ACTIVITY:

	1983	1984
Exploration Plans Approved	15	12
Leases Covered in Plans	21	15
Wells Spudded	38	18
Drilling Vessels Used	13	6

CURRENTLY, THREE SEMI-SUBMERSIBLES ARE OPERATING ON PACIFIC OCS EXPLORATORY WELLS. THIS NUMBER IS DOWN FROM A TOTAL OF 10 VESSELS THAT WERE WORKING AT THE END OF JANUARY 1984.

MANY WITHIN INDUSTRY AND GOVERNMENT BELIEVE THE CALIFORNIA OFFSHORE REGION TO BE THE MOST PROMISING UNEXPLORED OIL FRONTIER IN THE U.S. OUTSIDE OF ALASKA. ESTIMATES OF ITS POTENTIAL CHARACTERISTICALLY ARE STATED IN BILLIONS OF BARRELS. GIVEN THE RESOURCE ESTIMATES FOR THE REGION, THIS NATION'S CURRENT DEPENDENCE ON IMPORTS, AND OUR NEED TO INCREASE OIL PRODUCTION, THE LOCKING UP OF THESE VAST AREAS OFF CALIFORNIA IS A NATIONAL TRAGEDY.

THERE IS GROWING SUPPORT FROM CITIZENS OF THIS NATION, INCLUDING CALIFORNIA, FOR RESPONSIBLE OFFSHORE DEVELOPMENT WITH REASONABLE ENVIRONMENTAL SAFEGUARDS. FOR EXAMPLE, ACCORDING TO A 1983 PUBLIC OPINION SURVEY BY V. LANCE TARRANCE AND ASSOCIATES, MOST CALIFORNIANS SUPPORT OIL DEVELOPMENT OFF THEIR COAST. THE STATEWIDE SURVEY OF CALIFORNIA VOTERS WAS CONDUCTED BETWEEN AUGUST 31 AND SEPTEMBER 2, 1983 FOR THE WESTERN OIL AND GAS ASSOCIATION. A SUMMARY OF KEY FINDINGS SHOWS:

-- 55 PERCENT POLLED SAID THEY FAVOR DEVELOPMENT OF NEW OIL AND GAS FIELDS OFF THE COAST OF CALIFORNIA. ABOUT 37 PERCENT OPPOSED.

-- 57 PERCENT AGREED WITH THE STATEMENT, "IT IS POSSIBLE TO PROTECT THE OCEANS AND BEACHES WHILE DRILLING FOR OIL AT THE SAME TIME." THIRTY-THREE PERCENT DISAGREED.

-- 54 PERCENT BELIEVE THE OIL INDUSTRY HAS MAINTAINED A GOOD SAFETY RECORD IN OFFSHORE OPERATIONS OVER THE LAST TEN YEARS. TWENTY PERCENT WERE UNSURE OF THE SAFETY RECORD, WHILE 26 PERCENT DISAGREED THAT THE INDUSTRY WAS DOING A GOOD JOB.

-- 87 PERCENT THOUGHT DEVELOPING MORE U.S. ENERGY WAS ESSENTIAL TO REDUCE OUR DEPENDENCE ON FOREIGN OIL. MORE SPECIFICALLY, 55 PERCENT BELIEVED THAT DRILLING SHOULD OCCUR OFF THE CALIFORNIA COAST TO HELP SOLVE THE NATION'S ENERGY PROBLEMS.

I SUBMIT FOR THE RECORD A SUMMARY OF THIS OPINION SURVEY.

ALSO, I WOULD LIKE TO SUBMIT A LIST OF 45 CALIFORNIANS FROM DIVERSE SOCIOECONOMIC AND ETHNIC BACKGROUNDS WHO HAVE TESTIFIED IN SUPPORT OF OFFSHORE OIL DEVELOPMENT BEFORE VARIOUS CONGRESSIONAL HEARINGS IN THE PAST.

IN ADDITION TO THESE INDIVIDUALS, A GREAT VARIETY OF ORGANIZATIONS IN CALIFORNIA HAVE SPOKEN OUT IN OPPOSITION TO

OFFSHORE MORATORIA. ONE OF THESE IS THE CALIFORNIA CHAMBER OF COMMERCE, WHICH REPRESENTS 44,000 FIRMS INVOLVED IN BUSINESS, INDUSTRY, AND AGRICULTURE. THE CHAMBER HAS TAKEN AN OFFICIAL POSITION ON THIS ISSUE, WHICH I QUOTE:

> "THE CHAMBER SUPPORTS IMMEDIATE AND CONTINUING LEASING AND DEVELPMENT OF CALIFORNIA'S OFFSHORE OIL AND GAS PROPERTIES SUBJECT TO REASONABLE ENVIRONMENTAL CONTROLS (WHICH, INCIDENTALLY, THE CHAMBER BELIEVES ARE CURRENTLY IN PLACE) AND OPPOSES FEDERAL AND/OR STATE LEGISLATION WHICH SEEKS TO DELAY OR PROHIBIT SUCH ACTIVITIES."

UNTIL RECENTLY, MOST OF THE PEOPLE IN FAVOR OF OFFSHORE ACTIVITY DID NOT APPEAR AT OCS PRE-LEASE SALE HEARINGS OR AT THE HEARINGS HELD BY THE CALIFORNIA COASTAL COMMISSION. THIS IS NO LONGER THE CASE. INCREASINGLY LARGE NUMBERS OF WITNESSES REPRESENTING MANY DIFFERENT COMMUNITY GROUPS ARE APPEARING AT THESE HEARINGS TO TESTIFY IN FAVOR OF OCS ACTIVITY AND TO TALK ABOUT THE IMPORTANCE OF OIL DEVELOPMENT IN MAINTAINING A HEALTHY ECONOMY AND CREATING MUCH NEEDED JOBS.

IN CALIFORNIA, THE NUMBER OF BUSINESSES AND JOBS WHICH ARE SUPPORTED BY OFFSHORE DEVELOPMENT IS EXTENSIVE. AS AN EXAMPLE, CHEVRON'S PLATFORM EDITH OFF LONG BEACH WHICH COST OVER $266 MILLION PROVIDED OVER A MILLION MAN HOURS OF WORK TO CALIFORNIANS. CALIFORNIANS PROVIDE A VAST ARRAY OF EQUIPMENT

ESSENTIAL TO THE OFFSHORE OIL BUSINESS, SUCH AS SUBSEA DRILLING AND WELL COMPLETION EQUIPMENT, DRILL BITS, BLOWOUT PREVENTERS, CHARTS, NAVIGATIONAL SATELLITES, COMPUTERS, SURVIVAL CAPSULES, AND DIVING EQUIPMENT. A SUBSTANTIAL NUMBER OF CALIFORNIANS INVOLVED IN EVERYTHING FROM CONSTRUCTION TO "HIGH TECH" ARE DIRECTLY IMPACTED BY OFFSHORE DEVELOPMENT AND THEIR VOICES ARE NOW BEING HEARD.

DUE TO INCREASED PARTICIPATION BY CALIFORNIA OCS SUPPORTERS IN THE GOVERNMENTAL PROCESS, SOME PROGRESS IS BEING MADE. PERMITS ARE BEING ISSUED WITH STIFF CONDITIONS, AND DEVELOPMENT IS MOVING FORWARD.

A CASE IN POINT IS THE CALIFORNIA SANTA BARBARA CHANNEL AREA. THE COMPANIES INVOLVED IN OFFSHORE DEVELOPMENT IN THIS AREA RECOGNIZED THE NEED TO DEVELOP MORE EFFECTIVE COMMUNICATION WITH CONCERNED GROUPS AND INDIVIDUALS. CONSEQUENTLY, ELEVEN COMPANIES FORMED THE CALIFORNIA COASTAL OPERATORS GROUPS (C/COG) IN 1983. IN THE APPROXIMATELY TWO YEARS THAT IT HAS BEEN IN EXISTENCE, C/COG HAS ESTABLISHED ITSELF AS A CREDIBLE FOCAL POINT FOR INFORMATION DEALING WITH ISSUES AFFECTING OFFSHORE DEVELOPMENT. COMPANIES WITH PROJECTS IN THE CHANNEL AREA HAVE COMMITTED SIGNIFICANT TIME, TALENT, AND RESOURCES TOWARD PERMITTING THEIR PROJECTS. C/COG AND THE INDIVIDUAL COMPANIES HAVE HELPED INFORM THE PUBLIC AS WELL AS ELECTED OFFICIALS AND STAFF AS TO THE REAL ISSUES AND IMPACTS. EVEN WITH THIS EFFORT, THE ONSHORE PORTION OF CHEVRON'S POINT ARGUELLO PROJECT WAS SUBJECT TO 162 SEPARATE CONDITIONS.

NEVERTHELESS, WE ARE ENCOURAGED. THE PROCESS IS WORKING. GOVERNMENTS, INDUSTRY, AND THE PUBLIC ARE WORKING TOGETHER TO COME UP WITH A WORKABLE SOLUTION WHICH WILL ALLOW THE DEVELOPMENT OF OUR OFFSHORE RESOURCES TO GO FORWARD. ASSUMING CONGRESS DOES NOT IMPOSE ANOTHER LEASING MORATORIUM, OUR COUNTRY WILL BE ABLE TO MOVE FORWARD WITH THE ORDERLY OFFSHORE LEASING, EXPLORATION AND PRODUCTION OF ITS VITAL OFFSHORE OIL AND GAS.

THANK YOU.

Public Opinion Survey
on
California Offshore Oil Development

According to a public opinion survey by V. Lance Tarrance and Associates, most Californians support oil development off the California coast. The state-wide survey of California voters was conducted between August 31 and September 2, 1983 for the Western Oil and Gas Association.

Following is a summary of the key findings of this survey:

— 56% polled said they favor development of new oil and gas fields off the coast of California. About 37% opposed.

— 57% agreed with the statement, "It is possible to protect the oceans and beaches while drilling for oil at the same time." 33% disagreed.

— 54% believed the oil industry had maintained a good safety record in offshore operations over the last 10 years. 20% were unsure of the safety record, while 26% disagreed that the industry was doing a good job.

— 87% thought developing more U.S. energy is essential to reduce our dependence on foreign oil. More specifically, 55% believe that drilling should occur off the California coast to help solve the nation's energy problems.

Summary of Demographic Factors

Lance Tarrance Public Opinion Survey

California Offshore Oil Production

Question #16: One place where more oil and gas may be found is off the coast of California. In your opinion, do you favor or oppose the development of new oil and gas fields off the coast of California?

OVERALL RESULTS

Favor	56%
Oppose	37%

A) Sex	Favor	Oppose
Male	59%	37%
Female (Home)	57%	30%
Female (Employed)	51%	42%

B) Age Group	Favor	Oppose
Young Adults	51%	43%
Family Adults	51%	41%
Older Adults	65%	28%

C) Ethnic Group	Favor	Oppose
Black	66%	33%
Anglo	56%	37%
Asian	52%	36%
Hispanic	51%	43%

American Indian	78%	22%

D) Education	Favor	Oppose
Less than High School	64%	28%
High School Graduate	66%	27%
Some College	53%	40%
College Graduate	51%	42%

E) Employment	Favor	Oppose
Self-Employed	58%	38%
White Collar	50%	42%
Blue Collar	53%	39%
Government Worker	55%	40%
Other*	65%	27%

*Farmer/Rancher
Not in Labor Force
Unemployed

F) Labor Union	Favor	Oppose
Union Family	53%	42%
Non-Union Family	58%	35%

G) Annual Income	Favor	Oppose
Under $20,000	64%	38%
$20,000-$40,000	53%	39%
Over $40,000	56%	38%

H) Political Group	Favor	Oppose
Republican	70%	22%
Ticket-Splitter	56%	32%
Conser. Democrat	49%	44%
Mod/Lib. Democrat	41%	56%

I) Region	Favor	Oppose
Riverside-San Bern.	77%	18%
Central Valley	72%	20%
Orange County	69%	22%
San Diego County	62%	34%
L.A. County	60%	33%
Sacramento	49%	42%
South Coast	47%	49%
San Francisco	47%	47%
Bay Area	44%	50%
Elsewhere-Including North Coast	41%	50%

* * *

Congressional Witnesses from California
in Support of Offshore Oil Development

House Appropriations Subcommittee on Interior; June 14, 1983; Washington, D.C.

- Elaine Hale, agriculture consultant and former vice president, California Women for Agriculture
- Willis Edwards, president, Hollywood/Beverly Hills NAACP
- James Costa, California assemblyman
- Richard Long, president, Diving Unlimited, Inc., San Diego

House Interior and Insular Affairs Subcommittee on Mining and Forest Management; July 2, 1983; San Francisco, California

- Paul Owens, president, Ventura Chamber of Commerce, Ventura, California
- Paul Golis, Constituency for Public Awareness, Ventura, California
- Richard Long, president, Diving Unlimited, Inc., San Diego
- Willis Edwards, president, Hollywood/Beverly Hills NAACP
- Elaine Hale, agriculture consultant and former vice president, California Women for Agriculture

House Merchant Marine and Fisheries Subcommittee on Panama Canal and OCS; June 12, 1984; Washington, D.C.

- Clair DaRe, Representative of Northern and Southern Marine Associations

- Sergio Banuelos, President, California Hispanic Chamber of Commerce

House Government Operations Subcommittee on Environment, Energy, and Natural Resources; October 12, 1984; Santa Monica, California

- Daniel Tabor, Councilman, City of Inglewood, California

House Appropriations Subcommittee on Interior; March 22, 1985; Washington, D.C.

- Don Cobbs, President, Black Business Association of Los Angeles

- Larry Luera, League of United Latin American Citizens (LULAC) California

- Bob Moeller, President, Yolo County Farm Bureau

- Walter Stanley, California representative of the National Alliance of Senior Citizens

House Small Business Subcommittee on Energy, Environment and Safety, April 10, 1985; South Gate, California

- Mayor Herbert Cranton, Mayor, City of South Gate

- Jake Alarid, former chairman, American GI Forum

- Robert Clarke, harbor master, Crescent City Harbor District, Crescent City, California
- Margaret Cruz, former president, Mexican-American Political Association; League of Latin American Citizens
- James Barroca, executive vice president, Greater Ventura Chamber of Commerce
- Firmin Feuerborn, executive secretary, Santa Barbara and San Luis Obispo Counties Building and Construction Trades Council (written testimony)

House Appropriations Subcommittee on Interior; February 23, 1984; Washington, D.C.

- Daniel Tabor, councilman, City of Inglewood, California
- Sergio Banuelos, president, California Hispanic Chamber of Commerce
- W. N. Dietzen, Jr., Rear Admiral, retired, U.S. Navy, San Diego
- Laverta Montgomery, city manager, City of Compton, California
- Eli Sandoval, California State Chairman, G.I. Forum
- Joseph Flynn, member of Board of Supervisors, El Dorado County, California (written testimony)

- Bill Russell, California Highway Users Federation
- Ted MacDonald, manager, City of Vallejo, Vallejo, California
- Robert Pile, Mendocino Community College
- Bill Dubois, California Farm Bureau
- Winchell Hayward, Citizens for Adequate Energy
- Les Welch, Anaheim Chamber of Commerce, Anaheim, California
- George Schweitzer, National Council of Senior Citizens
- Harold Halterman, Kaiser Steel
- Firmin Feuerborn, Santa Barbara and San Luis Obispo Building Construction Trades Council, AFLCIO
- Bob Clark, Crescent City Harbor Master, Crescent City, California

House Interior and Insular Affairs Subcommittee on Mining and Forrest Management; September 20, 1983; Washington, D.C.

- Warren White, executive director, Tri-Agency Economic Development Authority, Crescent City
- George Schweitzer, field director, Southern California branch, National Council of Senior Citizens

- Anita del Rio, vice president, far west region, League of United Latin American Citizens (LULAC)

- Wes Bisgaard, former president, Imperial County Farm Bureau

- Clair DaRe, Northern California Marine Association

- Larry Lopez, executive vice president, California Hispanic Chamber of Commerce

- Robert Stringfield, president, Fullerton Manufacturing Company

- Ruben Jauregui, president, The Energy Group Inc., Western Pacific International

- Gene Hale, chairman, Black Business Association of Los Angeles

The **Chairman**. Gentlemen, thank you very much. And again, I apologize both for keeping you waiting for so long and then for abbreviating your time so greatly. But it's unavoidable in view of the Senate's schedule this afternoon. Thank you very much.

We will submit questions to you in writing for response for the record. Again, your full statement appears in the record. Thank you, gentlemen.

The hearing is adjourned.

[Whereupon, at 3:20 p.m., the hearing was adjourned.]

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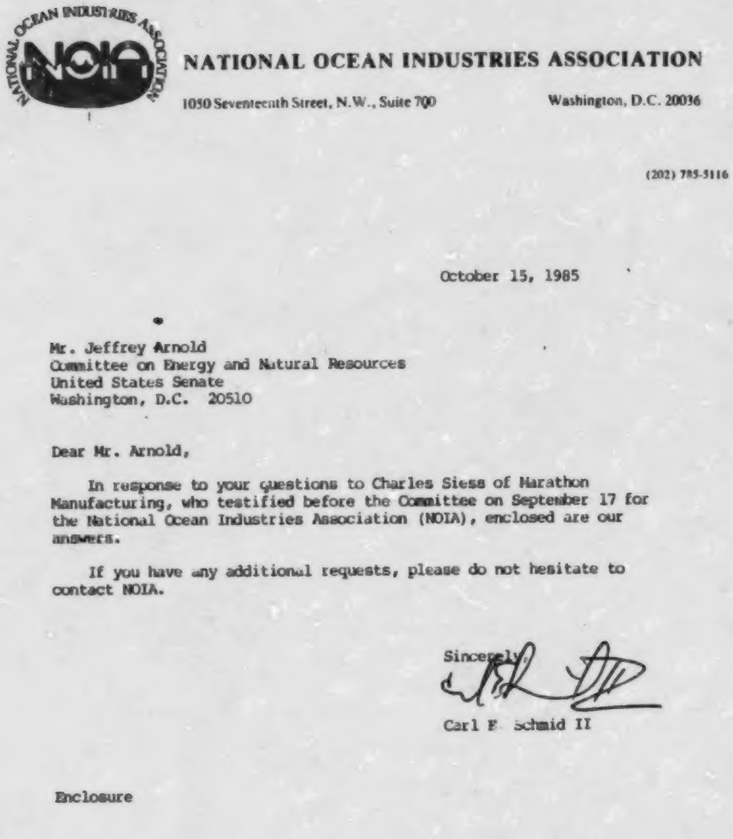
APPENDIXES

APPENDIX I

Responses to Additional Committee Questions



NATIONAL OCEAN INDUSTRIES ASSOCIATION
1050 Seventeenth Street, N.W., Suite 700 Washington, D.C. 20036
(202) 785-5116

October 15, 1985

Mr. Jeffrey Arnold
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Arnold,

In response to your questions to Charles Siess of Marathon Manufacturing, who testified before the Committee on September 17 for the National Ocean Industries Association (NOIA), enclosed are our answers.

If you have any additional requests, please do not hesitate to contact NOIA.

Sincerely,

Carl F. Schmid II

Enclosure

1. Do you feel our environmental response capability on OCS exploration and production is sufficient?

Yes, I do. In all phases of exploration and production on the OCS, industry is vitally concerned with the environment and the possible effect its operations have on the environment. In the many decades of OCS activity, industry has developed capable and adequate environmental response capabilities in each phase of activity. Industry has developed new technologies and procedures to insure careful protection of the environment. In addition, federal, state and local governments have promulgated strict regulations which industry must meet to operate offshore. Industry's record of environmentally safe operations on the OCS speaks for itself.

2. What is the most significant environmental concern when developing offshore equipment?

I believe it is the concern of the release of any oil into the marine environment.

3. A great deal has been said about the visual impact of development on the OCS. Can you give the Committee some idea as to the specific impact on the view from the coastal areas? Should we anticipate scores of rigs, resembling a forest, or small specks on the horizon?

In answer to the first question, I would refer the Committee to the attached diagram to this document. In regards to the second question, there will never be a forest of rigs and platforms on the ocean's horizon. First, one platform could accomodate multiple wellheads (some, up to 50). This one platform could extract oil from a large area. Second, it would be uneconomical to build numerous platforms (they can cost hundreds of millions of dollars each) instead of using one platform with numerous wellheads. Third, industry has been operating in federal offshore waters on the Pacific coast since 1963 and there are only 16 platforms. There are proposals to build additional platforms in the next few years, but even so, this would at most only double the current number. Fourth, the life of a producing well is most likely 30-40 years, after that, the platform can be removed.

4. Can you give us some idea as to the relationship of rig size and distance from shore?

Again, see diagram attached.

5. Do you believe a moratorium off California will have implications for other OCS areas, and if so, what are the employment ramifications?

Yes, I do. If a moratorium was to continue in California, our country would be deprived of the needed petroleum reserves the

California OCS possesses. Further, jobs and industries across the country rely on the offshore for their economic livelihood. A recent study by the American Petroleum Institute estimated that as many as 250,000 jobs could be added across the country if the area currently under moratorium was explored and developed. Inland states such as Illinois, Indiana, Michigan, Ohio, and Pennsylvania would be particularly affected since they supply a large portion of the industrial goods used offshore.

I have attached two articles, which discuss the national economic implications of OCS development.

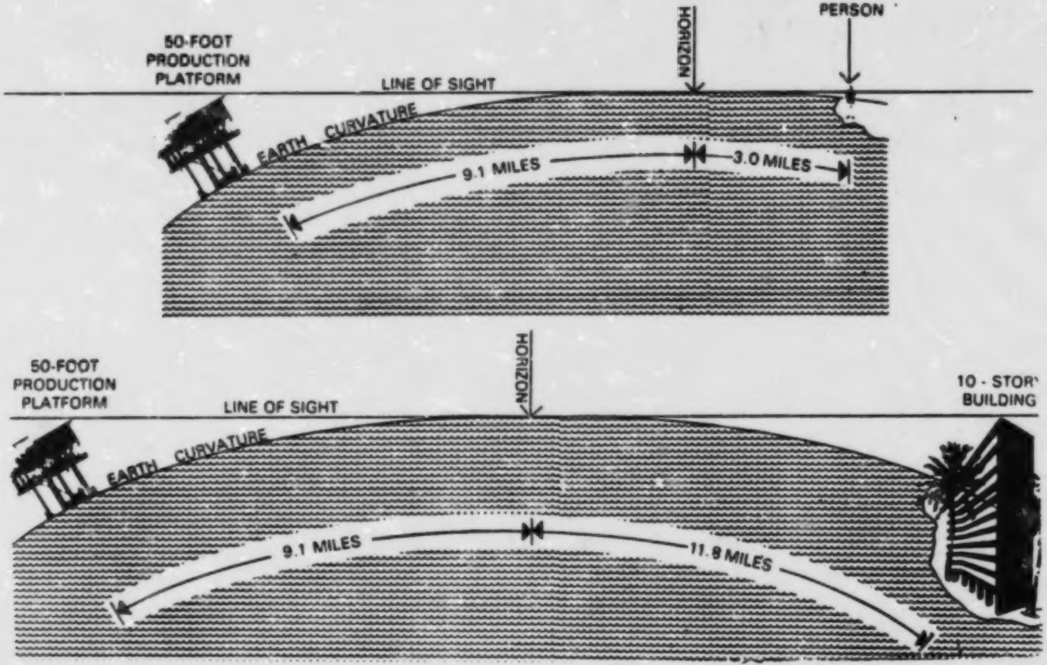
6. The New York Times said in its editorial on September 5, 1985, that "offshore oil probably reduces environmental risks; oil that is piped from offshore wells is less likely to spill and pollute beaches than oil imported by tanker." Do you agree with that statement?

Yes. According to the National Research Council (a part of the National Academy of Sciences) in a report issued April 22, 1985, routine tanker operations such as cleaning bilges produce 700,000 tons of the oil introduced into the oceans annually. In addition, tanker accidents introduce another 400,000 tons of oil. Worldwide offshore oil production accounts for only 50,000 tons each year.

7. Can you address technological advances that have led to safer (environmentally speaking) offshore development?

Three recent technological advances on the OCS are: improved blowout prevention devices and controls; zero-discharge drilling rigs, and enhanced oil spill containment equipment.

"HOW FAR CAN YOU SEE FROM THE SHORELINE?"


50-FOOT PRODUCTION PLATFORM
LINE OF SIGHT
HORIZON
PERSON
EARTH CURVATURE
9.1 MILES
3.0 MILES
50-FOOT PRODUCTION PLATFORM
LINE OF SIGHT
HORIZON
10 - STORY BUILDING
EARTH CURVATURE
9.1 MILES
11.8 MILES

HOW FAR CAN YOU SEE FROM SHORE

FROM	TO THE HORIZON	TO TOP OF 50-FT PLATFORM
Standing on Beach	3.0 miles	12.1 miles
10-story Building	11.8 miles	14.8 miles
20-story Building	16.7 miles	19.7 miles

OFFSHORE LEASING BENEFITS:
EVERYONE GETS A SLICE OF THE PIE

by

Paul K. Driessen

"Mention the benefits of offshore leasing," says Paul Kelly, Vice President of the Rowan Companies, a Houston-based offshore drilling contractor, "and most people think of oil, gas and jobs in a few coastal states. A few might mention the bonuses companies pay to get leases.

"These are certainly major benefits. However, they are only a small part of the total picture." One of the most important unsung contributions of offshore exploration and production, according to Kelly, are the thousands of jobs created in inland states and communities that are far removed from the actual business of punching holes to find and pump oil.

"The raw materials and equipment that go into rigs, platforms, seismic vessels, pipelines, refineries and other facilities don't come just from Texas or Louisiana," Kelly stresses. "Many critical items come from places most people would never expect -- Wisconsin, Michigan, Colorado, North Dakota, Utah and New Jersey, for example. Even my home state of Massachusetts, which has resisted every sale ever proposed off its coast, has jobs that depend on offshore oil and gas. Companies of all sizes are involved."

For instance, there's a shipyard in Marinette, Wisconsin, that recently built one of the most sophisticated seismic vessels the world has ever seen. (Seismic operations help pinpoint subsurface structures that might hold oil or gas, by using sound waves and computers to paint 3-dimensional pictures of rock formations far below the sea floor.) Other Wisconsin companies have produced special clothing, electrical equipment, cranes and structural steel components used in the construction of production platforms and a new drilling rig recently put into operation by the Rowan Companies.

Nor does the story end with jobs. According to William Bettenberg, Director of the Minerals Management Service (MMS), which administers the federal government's Outer Continental Shelf (OCS) leasing program, "There are a number of other benefits that don't often bask in the limelight. For example, the state and federal offshore leasing programs generate royalty and tax revenues for the U.S. and state treasuries, improve national security, fund park and recreation programs, and even create artificial reefs that greatly improve fishing opportunities for sport and commercial fishermen."

The seismic vessel vividly illustrates the breadth and depth of American industry's involvement in the offshore oil and gas business. When Shell Oil Company wanted to build a new seismic ship to survey the acreage being made available for exploration under the U.S. Interior Department's expanded offshore leasing program, it turned to the Marinette Marine shipyard in northeastern Wisconsin, near Lake Michigan and the St. Lawrence Seaway.

"We have extensive experience in building highly complex seagoing vessels and were very excited about the project," says Roger Derusha, president of the firm. "This was one of the first times an exploration company put the horse in front of the cart and didn't simply load a lot of advanced electronics equipment aboard a converted fishing boat."

Jack Threet, Shell Oil Company's Vice President for Exploration, adds, "This ship and the equipment she carries will greatly enhance the seismic data gathering process for us. Named the 'Shell America' because it was built entirely in the United States, it was designed around the needs of the geophysicists and reflects the highest standards of American technological ingenuity and construction excellence. We hope to find a lot of oil with it."

The steel came from Bethlehem Steel in Burns Harbor, Indiana. Thousands of gallons of paint were manufactured by the International Paint Company in New Jersey. The diesel engines were built by General Motors in LaGrange, Illinois, the General Electric generators in Schenectady, New York. Two 13-foot propellers were built by Bird-Johnson in Walpole, Massachusetts.

Air guns used to generate sound waves and "geophones" to collect return signals came from Bellaire Technology Corporation in Norwalk, Connecticut. Sophisticated computer equipment used to filter out background noise and enhance and interpret data was developed and manufactured by Sperry Univac and several other companies in Texas, Rhode Island and Massachusetts. The highly detailed and technical maps used to plot and record transit lines come from Florida and California.

This story is repeated in the areas of rig and platform fabrication.

The Rowan Company's "Gorilla" series "jackup" drilling rigs, like the 600-pound gorilla in the old joke, can sit anywhere they want. As the name suggests, jackup rigs utilize a "rack and pinion" system to raise the drilling platform on steel legs to a safe height above the water. The Gorilla series is designed to drill wells up to 30,000 feet deep in water depths up to 350 feet in extremely hostile environments, including the Bering Sea.

The Gorilla rigs are enormous (over 500 feet tall and more than 30 million pounds), cost some $95 million apiece, require large amounts of specialty steel and are equipped with sleeping and cooking quarters for 84 crew members and with the latest in drilling, communications, survival and pollution control equipment.

Gorilla rigs 1 and 3 were built at a Marathon-LeTourneau Company facility in Vicksburg, Mississippi, "using materials and equipment gathered literally from every corner of the United States," says Clyde Wilson, president of the Vicksburg rig yard. The laundry list of components proves his point.

Structural steel plate was manufactured primarily by Bethlehem Steel in Burns Harbor, Indiana, tubular parts by U.S. Steel in Lorraine, Ohio. The specialized welding equipment needed to put them together came from three Ohio companies. Their paint and protective coatings were made in Union, New Jersey, and San Francisco.

"The 'heart' of the rig is its power system," Wilson goes on. "It is made up of six huge diesel engines from Caterpillar of Illinois and a number of generators and motors from Detroit and King of Prussia, Pennsylvania. The rig's 'brain' is a room full of silicon controlled rectifiers, manufactured by GE in Salem, Virginia, and used to control all the various electrical equipment onboard."

Heaters for the work and living areas came from North Dakota; Carrier air conditioners from Texas and Tennessee; lighting systems from New Jersey; winches from Seattle; fire control equipment from Cleveland, Ohio, and Wake Forest, North Carolina; electrical equipment from Milwaukee; and high pressure rubber hoses from the Gates Rubber Company in Denver, Colorado and Lawrence, Kansas. A microwave telephone system was manufactured by the Hose McCann Telephone Company in Englewood, New Jersey. Two 50-person survival capsules (for emergency evacuation) were built by the Whittaker Corporation in LaMesa, California.

"It's important to remember, though, that drilling rig construction represents only a small part of the U.S. offshore business," says J. Ray McDermott Company's Manager of Business Development, Jack Wiseman. "Where America really stands out -- and where the jobs really are -- is in the design and construction of the huge stationary production platforms used to develop the oil and gas fields.

"In this area, we, Brown and Root, and Avondale are among the world's leaders. We build dozens of platforms every year, many of them costing $50-300 million or more."

These platforms go to the Gulf of Mexico, California, Newfoundland, the North Sea, Alaska and the Far East. They are constructed in yards in Maryland, Mississippi, Texas, Louisiana, Alabama and California.

Mr. Wiseman emphasizes the large amounts of capital, raw materials, equipment and jobs that go into these structures. "In just the last twelve months," he notes, "our Marine Construction Division spent more than $200,000,000 on domestic purchases, the most significant part of which included steel, paint and welding rods.

"Our steel comes primarily from Texas and Pennsylvania, followed closely by Indiana, Alabama and Florida. Our paint is purchased almost exclusively from California, while the welding rods are all bought in Ohio. Cranes to hoist supplies and equipment on the platforms and in the fabrication yards come mostly from Wisconsin and Minnesota." Other materials come from all over the United States.

According to Wiseman, McDermott expects to build at least 15-20 structures just for the deepwater portions of the Gulf of Mexico (750 tp 1,500 feet of water) during the next decade. Some of these structures, like Exxon's Lena platform, are as tall as the Empire State Building. "This effort will easily require over 30.5 million man-hours, which translates into a payroll well in excess of $300 million," he says.

Personnel employed by McDermott in its fabrication yards and on the offshore platforms actually reside in a number of states. Although most live in Gulf states, a significant number come from as far away as Hawaii, Indiana, Kentucky, New York, Oregon, Utah, Wisconsin and Wyoming, to earn good money in the offshore oil patch, before returning home.

"Of course, construction of these structures is only the beginning," observes Brown and Root's Ken Hicks, Vice President of Western Hemisphere Operations. "Once a structure is completed in the fabrication yard, it must be towed to the offshore site, where it is permanently fixed to the sea bottom and a deck, drilling and production equipment and other facilities are installed.

"This installation requires specialized marine construction equipment and highly trained and experienced personnel. One platform can take 200 skilled people three months to complete, once its components are moved offshore. Then it has to be maintained and supplied with a wide variety of materials and equipment, and this creates a whole new series of jobs."

Drill bits, drilling muds and special cements for both drilling rigs and production platforms come from California, Nevada, Wyoming, Oklahoma, Utah, Texas and Arkansas. Blowout prevention (BOP) stacks are built primarily in Texas and California, with Raytheon manufacturing many of the sophisticated BOP monitoring and control systems in Massachusetts and Rhode Island.

Drill pipe comes from a variety of sources in states like Oklahoma, Texas, California, Louisiana, Alabama and Utah. Pipeline quality pipe (which can be 20 to 56 inches in diameter) is produced by Brown and Root, McDermott and other companies from steel plate manufactured at U.S. Steel, Bethlehem and Kaiser Steel plants in California, Pennsylvania and a number of other states.

Crews and supplies are transported to and from the rigs by workboats and helicopters built in Connecticut, New York, Texas, Louisiana, Oregon, Washington and Alaska. Shoes, hard hats and special work clothes are manufactured in Tennessee, Wisconsin, Texas, Kentucky, Pennsylvania and Minnesota.

[PART 2 -- to break article into two parts, if desired]

While a large number of states share in the employment and revenue benefits of offshore leasing, the benefits are naturally most pronounced,

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pervasive and obvious in states like Texas and Louisiana. Offshore oil and gas leasing has been called "a mainstay of the Louisiana economy." A 1983 study by Louisiana State University economics professor Loren C. Scott underscores why:

During 1981, offshore activities supported over 125,000 jobs in Louisiana and generated household earnings of over $1.8 billion, according to the study. 55 percent of those household earnings (about $1 billion) was generated in segments of the economy other than oil and gas.

Of these jobs, 41,800 were the direct result of efforts to find, extract and refine offshore oil and gas. An additional 83,500 "indirect" or "spin-off" jobs were created in a wide range of other sectors of the Louisiana economy, including: manufacturing, construction, maintenance and repair, resale and wholesale trade, teaching, utilities, hospitals, real estate, transportation and warehousing, insurance, "Po' Boy" stands and restaurants.

In other words, each direct offshore job created two spin-off jobs in other parts of the Louisiana economy. Elsewhere, the indirect to direct job ratio can run as high as 4:1.

The total marketed value of oil and gas produced in state and federal waters off the Louisiana coast in 1981 was $19.1 billion. Onshore and offshore oil-related revenues (bonuses, rents, royalties and severance taxes) represented one-half of all the undedicated funds collected by the state in 1981. Corporate and employee income taxes related to oil and gas activities added to this revenue total.

In Texas, the story is similar. California -- in addition to being the site of major offshore exploration and production activity, especially on state lands within three miles of the coast -- has played a rather unique role in offshore oil and gas development.

Much of the world's technology for deep ocean drilling evolved there. California-based companies developed and produced revolutionary equipment for blowout prevention, radar and satellite navigation, directional drilling, marine geophysical surveys, computer enhancement and analysis of data, deepwater drilling and production, and pipe handling and laying in deep waters. Many of the special survival capsules used on rigs and platforms are also built there.

Californians also helped pioneer the "JIM" diving suits, diving saucers and other devices that permit scientific work and the installation and repair of oil and gas facilities at previously unheard of depths. Thousands have been employed in these programs -- thousands more in the exploration, production, refining and transportation sectors of the offshore oil and gas business, including rig and platform construction.

Revenues from leasing programs in state waters off California, Texas, Alaska, Louisiana and Alabama go to the state and local governments. Except for tracts along the state-federal boundary, revenues generated from leasing on the federal Outer Continental Shelf further offshore go to the U.S. Treasury.

Those revenues are substantial. As Interior Secretary William Clark has observed, "The OCS leasing program ranks second only to the Internal Revenue Service as a source of income to the United States."

In Fiscal Year 1983, the federal program collected nearly $11.4 billion in bonuses, rents and royalties alone. Of these funds, over $10 billion went to the U.S. Treasury General Fund, for allocation to a wide variety of defense and social programs. Since its inception in 1954, the OCS program has collected $68 billion in bonuses, rents and royalties.

Derrick A. Crandall, President of the American Recreation Coalition, emphasizes that, "Since 1964, OCS revenues have been used to purchase 5.6 million acres of local, state and federal parkland, endangered species habitats and recreation areas, through the Land and Water Conservation Fund (LWCF). That's a $6 billion federal investment in lands usable by hikers and campers, joggers and softball players, skiers and bicyclists, hunters, fishermen and birdwatchers -- all made possible by offshore oil and gas activities."

Among the key areas that have been acquired under the LWCF program are portions of the Point Reyes National Seashore, Appalachian Trail, Gateway and Cuyahoga National Recreation Areas, Redwoods National Park, several wild and scenic rivers and Channel Islands Marine Sanctuary. All together, some 1,600 acquisitions have been funded during the past 20 years. In addition, over 30,000 individual projects (baseball fields, trails, parks and so on) were completed at the state and local level, using LWCF money under a matching grant program.

Through the closely related Historic Preservation Fund, the federal offshore leasing program has aided in the acquisition or restoration of the Cahokia Indian Mounds in Illinois; historic storefront facades in Abbeyville, South Carolina; Frank Lloyd Wright's Taliesin home, workshop and retreat in Wisconsin; and thousands of other projects -- some 6,300 overall. Today, the fund is used primarily to assist state historic preservation staffs and to maintain and expand the National Register of Historic Places.

At the government level, numerous career opportunities exist for geologists, geophysicists, petroleum engineers, biologists, accountants, pollution control experts, oceanographers, auditors, economists, computer experts and attorneys. The Minerals Management Service, Environmental Protection Agency and National Oceanic and Atmospheric Administration, as well as their various state counterparts, hire specialists like these (as do the oil companies, naturally).

MMS spends some $29 million a year ($370 million to date) on environmental studies. Under this program, it contracts with research scientists in universities and companies all over the country to conduct studies on biological, physical, chemical and geological processes and parameters in our oceans, the habits and habitats of endangered species and other marine creatures, socioeconomic issues, and the potential effects of offshore exploration and production.

Women, Alaska Natives, other minorities and locals are finding increasing opportunities in the offshore oil patch in these fields and as truck drivers, rig fabricators, heavy equipment operators, welders, drilling rig crew members, pilots, and technical and support staff. The role of Black and Chicano owned contractor and service companies is also growing.

These factors, and the danger of crisis-caused job losses and energy price increases, have been cited for the strong support the Watts NAACP and several Hispanic groups have given the offshore leasing program at congressional hearings during the past couple of years.

Because of offshore development, the town of Kenai, Alaska, has a refinery, fertilizer plant and gas liquefaction plant, as well as dock and warehouse facilities, a new sewage treatment plant and oil field service businesses (clothing, food and equipment suppliers). All employ local Natives.

Offshore oil and gas production platforms also function as artificial reefs. Their hard surfaces allow corals, sponges and algaes to grow, providing food, habitats and protection from predators, increasing both the number and diversity of fish and shellfish, and luring both sport and commercial fishermen.

During 1983, over 20,000 sport fishing boat trips were made to platforms in the Gulf of Mexico. Shrimpers trawl as closely as possible to pipeline trenches, as that is where the shrimp seem to congregate most heavily.

Charter boat captain Charlie Hardeston is blunt in his assessment of offshore oil and gas operations. "The best fishing holes in the Gulf are right off the platforms. Take away those platforms," he says, "and you take away our fish."

In California, Bob Meek harvests 2,000 pounds of mussels a week from platform legs, for sale to markets and restaurants. Tests by the U.S. Food and Drug Administration and California Public Health Department found that their meat contained fewer contaminants than did mussels harvested in Bodega Bay, California's cleanest bay -- attesting to the effectiveness of modern pollution control regulations and equipment.

In Secretary Clark's view, a final -- but vital -- benefit is national security. "In 1983," he points out, "we bought the same amount of foreign oil as we did just before the 1973 OPEC embargo. Fifty-two billion dollars or three-fourths of our entire balance of trade deficit went for oil. That's equal to the combined 1982 net asset value of General Motors, Coca-Cola and Lockheed Aircraft.

"At this rate, in 25 years, we will have sent overseas enough money to buy all the top 500 industrial corporations in America. We simply cannot let this happen. We certainly cannot afford to let import levels continue to increase, even as our expanding economy creates a need for a lot more oil and gas."

Offshore Leasing Benefits
Paul K. Driessen

Right now, the United States produces about two-thirds of all the oil it consumes. Eleven percent of our oil (341 million barrels) and 24 percent of our natural gas (4 trillion cubic feet) in 1983 came from the Outer Continental Shelf. OCS production has been rising steadily over the past three years. However, repeated references to the supposed worldwide "glut" of oil are obscuring several serious domestic developments.

By 1995, production at Alaska's huge Prudhoe Bay field is expected to fall from the current 1.5 million barrels of oil per day to between 250,000 and 750,000 barrels. This decline is equivalent to 3-6 times as much oil as America lost in 1979, following the Iranian revolution, or to an increase of 22-35 percent above present oil import levels. Other fields, onshore and offshore, are also being depleted.

New fields obviously have to be found. In fact, the analysts say, America will have to find some 32 billion barrels of new oil reserves during the next ten years, just to keep domestic production at its current level. Most experts believe over half of our future oil and gas supplies will come from offshore.

MMS Director Bettenberg underscores the need for exploration: "We simply cannot afford to have each barrel of oil we save through conservation or the switch to alternative sources of energy offset by further declines in domestic production. We must pursue a program of timely and environmentally sound exploration and development, to protect both our national security and economic well-being."

Both Bettenberg and Interior Secretary Clark recognize that many offshore oil and gas fields are being depleted, especially in state waters and nearshore areas, and that shifts will occur in the current economic picture, as exploration and production move into deeper waters, farther from shore, and into frontier areas like Alaska. However, they see this as nothing new or unusual.

"Ours is a highly dynamic, ever-changing economy," notes Bettenberg. "It's also one in which the resources, jobs and benefits are spread somewhat unevenly. Not everyone can have a Silicon Valley, Wall Street or steel industry. Neither can we expect that everyone will benefit equally from offshore leasing, or that the benefits will remain constant.

"In the middle of the Nineteenth Century, as the Industrial Revolution created new demands for lubricants and fuel, and as whale oil became scarcer and more expensive, America began to produce oil from the ground. Later, Congress passed the Interstate Pipeline Act, making natural gas economical to transport and use. Some jobs disappeared, but entirely new industries sprang up, creating thousands of new jobs.

"In the near future," he acknowledges, "some of the current picture will also change. For example, Louisiana will probably not get as much revenue from production on state tidelands, and America will begin switching to alternative sources of energy.

"However, this will not alter the fact that billions of dollars in benefits have poured into the state for decades, or that new activities in frontier areas will continue to provide jobs in shipyards, mills, refineries and numerous other industries in Louisiana and throughout the United States for many years to come."

Paul Driessen is an attorney-adviser and policy analyst for the Minerals Management Service. He received his B.A. in geology and biology from Lawrence University in Appleton, Wisconsin, and a law degree from the University of Denver.

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Approximately 3,500 words

(Color slides are available -- see attached descriptions)

PHOTOGRAPHIC SLIDES

available for use with

OFFSHORE LEASING BENEFITS: EVERYONE GETS A SLICE OF THE PIE

1. Exxon Oil Company's "Lena" production platform under construction in Brown & Root's Harbor Island Fabrication Yard, near Corpus Christi, Texas. The cars and trucks in the foreground indicate the enormous size of this structure.

2. An artist's rendering of Exxon's "Lena" guyed production platform against the Houston skyline, showing its guy line anchoring system. This huge structure, now producing oil in the Gulf of Mexico off Louisiana, stands nearly 1,300 feet above the sea floor -- the tip of its equipment crane rising to a height 50 feet taller than the Empire State Building.

3. The 20,000-ton hull section of Continental Oil Company's "Hutton" production platform, being mated with its deck section. The completed platform is designed to extract oil from water depths of more than 1,000 feet. (The two tugboats are 110 feet long.)

4. Thick, heavy gauge steel plating being rolled into a section of 5-foot diameter tubing at Brown & Root's Greens Bayou Fabrication Yard in Houston, Texas, for use in the construction of an offshore drilling rig or production platform.

5. Welders fabricating an offshore production platform.

6. The stern section of the "Shell America" seismic vessel, shortly before launch, in the Marinette Marine Corporation's shipyard in Marinette, Wisconsin. Each of the two highly skewed, variable pitch main propellers is 13 feet in diameter.

7. A tiny seaweed blenny fish (Blennius marmoreus) peers from an abandoned barnacle shell on the leg of an offshore production platform in the Gulf of Mexico. A live barnacle (Balanus tintinabulum) is nearby.

8. A fisherman casts in his line from Captain Charlie Hardeston's charter boat, moored to an oil production platform in the Gulf of Mexico. Minutes later, he landed a 5-pound sea trout.

9 and 10. The Rowan Gorilla 1, built by Marathon-LeTourneau Company in its Vicksburg, Mississippi, fabrication yard, drilling an exploratory well in the North Atlantic. Each of the 50-person orange survival capsules is 25 feet long.

CREDITS

Slides 1, 2, 3, 4 -- Brown & Root Development Company; Slide 5 -- American Petroleum Institute; Slide 6 -- Shell Oil Company; Slide 7 -- LGL Ecological Research Associates; Slide 8 -- Paul K. Driessen; Slides 9 and 10 -- Marathon-LeTourneau Company.

**Petroleum
Equipment
Suppliers
Association**

J. Stephen Larkin
Vice President-Public Affairs

9225 Katy Freeway Suite 401
Houston, Texas 77024
713/932-0168

October 8, 1985

Mr. Jeffrey D. Arnold
Professional Staff
Committee on Energy and
Natural Resources
United States Senate
Washington, D. C. 20510

Dear Jeff:

Attached is the statement for the record submitted by Mr. E. C. Broun, Jr., President of the Petroleum Equipment Suppliers Association, on behalf of the Association. The statement is submitted in response to the questions of Senator Ford which you sent and we received on September 23, 1985.

Jeff, it has been a pleasure to work with you on the leasing issue although I would have rather seen the issue resolved in our favor. It seems to me that the California delegation is willing to bet a great deal on the relative importance of "view shed" and "air shed" in relation to the nation's future energy needs.

Sincerely,

PETROLEUM EQUIPMENT SUPPLIERS
ASSOCIATION

Steve

J. Stephen Larkin
Vice President - Public Affairs

JSL;trp

cc; Mr. E. C. Broun, Jr.
Mr. William J. Sallans

PESA believes that the enviornmental issues of offshore drilling off the coast of California have been addressed by industry and with the result of an absolute minimum impact for the pleasure of Californians. There is proven statistical history that we have controlled oil spills and resulting enviornmental damage. The matter of "view shed" and unsightliness of platforms and rigs is a very minute and selfish one when you consider the energy security of the whole country. Our industry has made great technological advances to minimize the surface installations with subsea completions.

Additionally, the air quality concerns offshore relating to the onshore "air shed" basins in California are scientifically ridiculous.

DIAMOND M COMPANY
A Kaneb Company

NED E. SIMES
President and
Chief Executive Officer

October 7, 1985

Mr. Jeffrey Arnold
% Senate Committee on
Energy & Natural Resources
U.S. Senate
Washington, D. C. 20510

Dear Mr. Arnold:

Please find attached a response to the list of questions prepared by the staff of the Senate Committee on Energy and Natural Resources. I hope that these responses provide adequate information concerning the subject.

If you have any questions, please let me hear from you.

Very truly yours,

Ned E. Simes

NED E. SIMES

NES/jk
Enc.

cc - Mr. Brian T. Petty
IADC
1901 "L" St., NW, #702
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1. Do you feel our environmental response capability on OCS exploration and production is sufficient?

   In the past twenty (20) years significant advancements have been made in environmental response capability on offshore leases. This has been accomplished by working closer with the regulatory agencies such as the USCG; however, we cannot relax our efforts in monitoring situations which could be harmful to the environment offshore. The first major occurrence involving a blowout with subsequent oil leakage into the California waters has not been repeated since the 1960's, other than the Mexican blowout which occurred within the last five (5) years. The Mexico oil spill was the result of a blowout which was not under the jurisdiction of any OCS regulatory agencies.

2. What is the most sufficient environmental concern when developing offshore equipment?

   We think the question should read: "What is the most important environmental concern when developing offshore equipment?" And the answer to that is - pollution.

3. A great deal has been said about the visual impact of development on the OCS. Can you give the Committee some idea as to the specific impact on the view from the coastal areas? Should we anticipate scores of rigs, resembling a forest, or small specks on the horizon?

   In comparing the size of OCS blocks to an offshore drilling rig: the size of the rig in comparison to the size of the block is minimal. In exploratory drilling, normally only one rig is conducting this type of drilling in a given area and rigs are spread miles apart. Due to the high cost of developing new field discoveries, most companies set a platform rig whereby numerous directional wells can be drilled from one platform in a block. The deepest platform of this type is in approximately 1200 feet of water and this platform is in a significant field discovery where 24 - 48 wells are drilled from the same platform and many miles from land. Future exploration and development drilling will occur in deeper water, many miles from shore and non-visible to the naked eye.

4. Can you give us some idea as to the relationship of rig size and distance from shore:

   On a clear day, from the smallest to the largest rig, no details can be seen by the naked eye of more than 1 - 1½ miles. Beyond this distance no significant details can be seen; and, to the uneducated eye, these rigs could not be distinguished from any other vessel in the sea. In comparing offshore tankers to rigs, at a distance of over 1½ miles, it is difficult to distinguish between the two.

5. The New York Times said in its editorial in September 5, 1985 that "offshore oil probably reduces environmental risks; oil that is piped from offshore wells is less likely to spill and pollute beaches than oil imported by tanker." Do you agree with that statement?

   It is a well known fact that the New York Times has ben alien to offshore development drilling in the past; and this statement is significant in that it appears the public is finally being told some of the truths about our industry. With the advanced technology being made on oil pipeline shutdown systems and the fact that, normally, large pipelines are buried under the ocean seabed, the chances for damage to the pipeline from outside sources are far less likely than fully-loaded oil tankers. Should a spill occur in a pipeline, these advance shutdown systems will minimize environmental damage; whereas, tanker wrecks can be disastrous to the environment as they cannot be controlled. There are the same controls in operation on the Alaskan pipeline.

6. Can you address technological advances that have led to safer (environmentally speaking) offshore development?

   Significant progress has been made in the past few years in the areas of blowout prevention and blowout prevention controls. Personnel training in blowout prevention is mandatory on offshore drilling rigs and our training of rig personnel in all aspects of drilling operations is more advanced. Zero pollution areas, such as Mobile Bay, presently have a number of rigs working and have no discharges of any sort into the bay - liquids or otherwise - from any of the rigs.

   The stringent environmental requirements of Mobile Bay necessitated that drilling contractors meet the challenge and the costs of making each rig discharge free in order to work in this area of the Gulf of Mexico.

   In California, in order to meet the Nox emission requirements for air pollution, main rig diesel engines were retarded by changing the engines' timing control to reduce Nox emission, at a considerable cost to the drilling contractor.

INTERNATIONAL
ASSOCIATION
OF GEOPHYSICAL
CONTRACTORS

IAGC

PUBLIC AND GOVERNMENTAL
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4 October 1985

Senator James A. McClure
Chairman
Senate Committee on Energy & Natural Resources
Washington, D.C. 20510

Attn: Mr. Jeffrey D. Arnold

Dear Senator McClure:

It was a pleasure to appear before your committee to speak about the moratorium of Outer Continental Shelf lease offerings. Enclosed are additional data and information, in response to the follow-up inquiry from your staff, which I wish to be included in the record.

Very respectfully,

Larry G. Bowles

Larry G. Bowles

LGB/mmg
Enc.

cc: Tim Lauri, IAGC
Carl Schmid, NOIA

Committee Note.--Due to the voluminous nature of the material supplied only the questions and answer are reprinted. The material submitted by Mr. Bowles has been retained in Committee files.

RESPONSE TO STAFF INQUIRIES FROM THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE FROM THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS

October 8, 1985

QUESTION:

Do you feel our environmental response capability on OCS exploration and production is sufficient?

ANSWER:

Geophysical exploration companies have developed technologies tender to the environment, e.g. the pneumatic device for generating acoustic energy, and have been very actively working with other ocean users and managers to assure our operations do not interfere with theirs. Those steps, and the continuing commitment to such activities, assures that our industry is more than sufficiently responsive to environmental concerns.

The answer to this question in terms of discharges, including episodic such as an oil spill, should be addressed by representatives of the petroleum drilling and producing industry.

QUESTION:

What is the most sufficient (sic) [significant] environmental concern when developing offshore equipment?

ANSWER:

The geophysical exploration community is most concerned about the effects on marine life of the acoustic energy generating source. For that reason was developed the pneumatic device called in the trade "air gun". That device releases compressed air from a chamber, which then causes an air bubble, the actual source of the acoustic energy. These devices are deployed so that the majority of the energy is directed toward the ocean floor, thus reducing wasted energy and effects on marine life laterally from the source.

The effects in the main energy path of the pneumatic acoustic energy source are insignificant. Studies have shown such to be the case, and high fish-catch statistics about areas where geophysical exploration has been on-going for several years underscore environmental safety of the "air gun." This device is the predominant source (97% world wide), and has been in the fleet for nearly twenty years.

Not all commercial fishermen are convinced by the studies and statistics. However, rather than encourage a confrontational atmosphere, our industry has been very active in cooperative demonstrations, studies and conflict-resolution programs with commercial fishermen and their association representatives.

QUESTION:

A great deal has been said about the visual impact of development on the OCS. Can you give the Committee some idea as to the specific impact on the view from the coastal areas? Should we anticipate scores of rigs, resembling a forest, or small specks on the horizon?

ANSWER:

The representatives of the drillers and producing petroleum companies will provide the definitive response to this question. The association offers these points:

- view, like beauty, is in the eyes of the beholder, and should not be allowed veto power over transcending national imperatives such as economic viability, energy security, and government revenue;
- the view of rigs is certainly less repulsive than some onshore development that is very certainly within the shore view shed;
- the OCS is beyond three miles from shore and thus the curvature of the earth and distance are factors that result in minimizing what one would see from the shoreline; and
- the distance between tracts, spatial and temporal (in terms of timing of leasing and development), and the advances in drilling technology result in a very light density of rigs and platforms.

QUESTION:

In testimony before this Committee, it has been noted that certain geophysical seismic surveys cause disruption amongst fish schools, and can cause damage to fish eggs and food larvae. Can you address what is being done to mitigate this problem, if indeed it is a problem?

ANSWER:

There is concern in our industry about the subject on two counts. The first is whether there is a real effect on fisheries. The second is, specifically, perceptions held by commercial fishermen which affect our ability to work together harmoniously. Data, e.g. fish statistics mentioned above, show there are no significant adverse effects on commercial fisheries (see enclosed book on fish/oil issues). Additionally our industry has spent several hundreds of thousands of dollars to investigate the continuing concerns of some commercial fishermen (see the enclosed report of such a project done cooperatively by our industry, commercial fishermen, and State and Federal agencies).

We recognize that some commercial fishermen continue to be concerned about potential adverse effects of our industry's operations on the public resource they seek, fisheries. As study results continue to show that their concerns are without merit, or at least shown to be beyond scientific substantiation, our industry continues the commitment to talk and work with the commercial fishing community in the spirit of cooperation.

Projects in which our industry is continuing to participate include a series of field, laboratory, and mathematical-model simulation of population dynamics of selected fish and shellfish, and the potential contribution, if any, of seismic exploration induced mortality to the population size of those species at commercial harvest stages. Data show that there is no significant effect, but since some commercial fishermen continue concerned, and since the projects would be useful for allaying their concerns, assuring operational harmony, and would advance fisheries management science, our industry is cooperating by furnishing acoustic scientists, engineers, equipment, and ecosystem/resource analysis and modelling expertise.

QUESTION:

How good is speculative geophysical data over the long-term?

ANSWER:

Factors pertinent to this question are:

- financial effects on geophysical contractors;
- technical obsolescence;
- service to franchisees; and
- effect on participation in lease offerings.

Financial Effects

Moratoria, whether one year, or multiyear, reduces the financial value of existing data because of value of depreciated dollars. Secondly, there results a stiffling of investments in improving technologies. Finally, with data becoming public the financial value would go to zero and result in the loss of millions of dollars and threatening the U.S.A geophysical capacity.

Technical Obsolescence

Implicit in the question is that data has a shelf life. There is concern about that factor, but it is only in the context of the exploration scenario. Obsolescence is a function of evolutionary events involving iteratively collecting, analyzing, and interpreting data, learning from the process and continuing the iterations in the same or new areas, with different data collection specifications or with new technology. Inextricable are the steps that involve interpretation and conclusions about what constitutes advance in knowledge and technology application, in terms of whether data has a shelf life of 10 years or 25 years. It is valid to consider that there are no accurate preconclusions about shelf life of data collected either for exclusive contract agreements or in the framework of non-exclusive franchising agreements (the latter often inappropriately called "speculative geophysical data").

Service to Licensees

The single greatest source of geophysical data used by the Minerals Management Service under the provisions of the OCSLA to make resource assessments and management decisions are the copies of franchised data collected by our members. Data are usually furnished to the Government at nominal costs to the federal treasury - thus saving taxpayers the millions of dollars which would otherwise be required for research, capitalization, and operational expenses. Demand by private sector clients for use of franchised data speaks eloquently to the validity of such service as evidenced by th volume of advertising for such data in leading trade journals such as the "Oil and Gas Journal" and the publication of the Society of Exploration Geophysicists "Leading Edge."

Effect on Lease Offering Participation

Franchised data is available to a broad base of users at costs to them more nominal than available by exclusive agreements. The result is there are more entities with knowledge of potential resources in a given lease offering area, and probably, therefore, more participants in bidding for leases than would otherwise result.

QUESTION:

If we placed large sections of the OCS under 15-year moratorium would data collected today still be valid in the year 2000?

ANSWER:

Very probably the data would be valid. See the answer to question 5 above.

Additionally:

- Harry Jamison, an ARCO executive involved in exploration of Prudhoe Bay, has stated that the geophysical data collected on the prospect (nearly twenty years ago) continues valid today; and
- Our members would experience millions of dollars in losses of sales from existing inventory and work that would have resulted if lease offerings were to be allowed according to schedules pursuant to the purposes of the OCSLA.

SIERRA
CLUB

330 Pennsylvania Avenue, S.E., Washington, D.C. 20003 (202) 547-1141

October 25, 1985

Senator James A. McClure, Chairman
Committee on Energy and Natural Resources
U.S. Senate
Washington D.C. 20510

Dear Mr. Chairman,

This letter is in response to the questions submitted to me by your staff as a follow-up to the hearing held by your committee on September 17 of this year, concerning OCS leasing off the California coast. The responses are numbered in correspondence to the questions submitted. Thank you once again for the opportunity to testify at these hearings.

Sincerely,

Brooks B. Yeager

Brooks B. Yeager
Washington Representative

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." *John Muir*
National Headquarters 530 Bush Street, San Francisco, California 94108 (415) 981-8634

1. The California Coast is a national treasure. Due to its unusual geographic features, including a rapid drop-off of the continental shelf in most reaches, oil and gas exploration tends to occur closer to shore than it does, say, in the Gulf of Mexico. Therefore, special care needs to be taken in making decisions which may lead to extensive offshore development. Despite this fact, we do not propose that California be treated "differently" than other states where OCS development is controversial. We believe a long-term agreement of the kind struck between the California delegation and Secretary Hodel might also be in the public interest in areas such as the Massachusetts coast and the Gulf of Alaska.

2. Yes, particularly in the George's Bank area and in Norton Sound and Bristol Bay in Alaska.

3. Please see my testimony at the hearing for our answer to this question.

4. Yes.

5. The agreement allowed the 3 COST wells in areas barred from other exploration, for the purpose of making initial determinations of the presence and extent of hydrocarbon resources in these basins. We believe the three wells are, at this time, sufficient for the purpose.

6. We have not advocated the establishment of any new authorities for this purpose. Rather, we believe the DOI should more carefully consider citizen and state recommendations not to lease, and we have supported legislative language in the House to mandate this requirement.

7. We believe that Secretary Hodel's prime goal at this point is not to arrive at an "improved" list of 150 tracts, but rather to scuttle the agreement by questioning the validity of the tracts he had earlier agreed to, and which were offered in negotiations after a DOI screening.

8. Such negotiations would only be fruitful if there was a clear intent to uphold the spirit of the earlier agreement. At present, we see no evidence of such an intent on the part of the Secretary.

9. That would depend on our analysis of the tracts to be offered, and the adequacy of the environmental and public participation process leading to the leasing decision.

10. Such moratoria were not thought to be necessary until Secretary Watt radically altered the nature of the OCS leasing program itself, subordinating state and citizen concerns to an overriding goal to lease as much OCS property as possible, as quickly as possible. As long as that basic policy remains in force, moratoria covering areas legitimately worthy of protection may very well be necessary.

11. Please see the testimony already submitted on this point.

12. Yes.

FRIENDS OF THE EARTH
530 7TH STREET, S.E., WASHINGTON, D.C. 20003
(202) 543-4312

QUESTIONS FOR PANEL III/YEAGER, PALMER, WEBB, GRADER

QUESTION: Why is it necessary for California to be treated differently than other states when considering OCS leasing?

Secretary Hodel entered into negotiations with the California delegation. We would support a good faith effort between the Congress, the administration and interested parties for any OCS leasing area. California need not be thought of as different from other states, what must be recognized is that a very environmentally sensitive coastline is being considered for leasing.

FOLLOW-UP: Would you advocate moratoria in other OCS areas?

We advocate responsible leasing programs, not moratoria, as policy. Whenever leasing is sought in areas which are environmentally sensitive, and which have competing economic values, we may seek tract deletions. We will not support leasing in any area where DOI has not adequately assessed the conflicts posed.

QUESTION: What is the real environmental issue? This Committee has heard a variety of supposed problems, which is the most important consideration and if possible rank the others?

There are many environmental concerns which cannot be put into an arbitrary ranking system, as problems vary from area to area along the coastline. In one tract location the problems may be mainly visual in nature. In another it may be threats to air or water that merit the most consideration. The real environmental issue is one of ensuring that the coastline is adequately protected, and that the concerns we have voiced throughout the negotiations be addressed.

QUESTION: Have you considered the national and international economic and security implications of a substantial OCS moratoria?

Yes.

QUESTION: In the preliminary and now defunct agreement, a few exploratory wells would be permitted. Since, 85% of all such wells are dry, doesn't it make sense to allow a greater number of exploratory wells to determine the scope of the resource?

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COST wells, continental off-structure test wells, have proven to be quite effective in providing valuable information about the geological structure of the coastline, and the provisions as they stand now allow for three of these wells in areas where oil deposits are not present.

QUESTION: What new authorities would be required to meet your environmental concerns that would mitigate the need for any moratoria?

No new authority is needed.

QUESTION: Why has the environmental community objected to Secretary Hodel's wishes to change the 150 tracts?

We object because Secretary Hodel negotiated an agreement which he told us he expected to see little change in. It was after several oil companies complained to the Reagan Administration that a complete turn-around occurred. We have not seen the new tracts, nor do we know where they are located.

QUESTION: With more specific information, would it not be better for all parties to negotiate further?

We would be open to further negotiation, and as we understand it, the California delegation is also open to the idea. There is a very serious credibility question here, concerning the reliability of Secretary Hodel in any new "good faith" attempts at negotiation.

QUESTION: Would you anticipate litigation blocking leasing on a different 150 tracts from those in the preliminary agreement?

It is possible.

QUESTION: In your view, is there any way to avoid moratoria on the OCS?

We certainly feel that there is a way to avoid moratoria on OCS, and that can occur if Secretary Hodel, the rest of the Reagan administration and Congress take seriously the needs and requests of local citizens, officials and experts. If this is done, and we listen to the people of California, a moratoria does not have to be the only solution.

QUESTION: The preliminary agreement had specific language addressing consultation with affected state and local officials. Why is the environmental community so strong in its condemnation of the Secretary and his conclusions?

Our condemnation of the Secretary has nothing to do with future efforts to consult with state officials. It has to do with the Secretary's actions as words, as detailed in our testimony.

FOLLOW-UP: Has the environmental community seriously considered what the majority of Californians want in terms of OCS development?

There is no doubt that the majority of Californians favor Friends of the EArth's point of view on this subject, as opposed to the Administration's.

Questions Submitted By

Geoffrey C Webb

Geoffrey Webb
Washington Director
Friends of the Earth

EXXON COMPANY, U.S.A.
POST OFFICE BOX 2180 • HOUSTON, TEXAS 77001

EXPLORATION DEPARTMENT

P. W. J. WOOD
VICE PRESIDENT

October 18, 1985

The Honorable James A. McClure, Chairman
Senate Energy and Natural Resources Committee
United States Senate
Washington, D.C. 20510

Dear Senator McClure:

On behalf of API, we have attached answers to follow-up questions arising from the Senate Energy Committee's September 17, 1985 hearing on the subject of Secretary Hodel's preliminary OCS leasing agreement with representatives of the California delegation.

Please contact us if we can be of further assistance.

Sincerely,

PWJW:cw
Attachment

Senate Energy Committee Questions

California OCS Hearing

1. What portion of the trade deficit can be attributed to oil imports?

   A: According to the Bureau of Economic Analysis, in 1984 the United States paid approximately $58 billion for imported petroleum accounting for almost 54% of the nation's trade deficit of 108 billion.

2. What will be the total national cost of imported oil in the year 2000 if the California OCS is not developed? ($200 billion at 50% of U.S. needs)

   A: The U.S. Energy Information Administration estimates that by 1995 the United States will be importing about 52% of its daily petroleum requirement of 18 million barrels per day. In 1984 dollars, such an import level in 1995 will cost the U.S. $138 billion. A recent report prepared by the American Petroleum Institute estimates the potential consequences of no further leasing in the California OCS. The report assumes that the California OCS could produce an additional 168,000 to 672,000 barrels of oil per day by the early 1990's. The cost of replacing this possible production with imports could range from $2.4 billion to $9.8 billion again, in 1984 dollars.

3. In your view, what are the national security implications of non-development of our OCS?

   A: Failure to develop domestic OCS oil and gas resources in a timely manner likely will result in further declines in proved domestic reserves, lower levels of oil and gas production and, as a result, greater dependence on foreign sources. Greater reliance on foreign supplies likely will mean an increase in our dependence on insecure sources in the middle east which will in turn heighten U.S. vulnerability to supply interruptions.

4. It has been noted that industry was not particularly interested in the 150 tracts that would have been released under the agreement. Can you explain why?

   A: The tracts included in the agreement are not geologically and/or economically attractive. In Exxon's view, none of the 150 tracts was well located to test any of the better prospects in the moratorium area. If only these tracts were put up in a lease sale, Exxon would likely not bid on any of them.

5. Did Secretary Hodel consult with industry before proposing the tracts in the agreement?

   A: Exxon did not know which specific tracts were contained in the agreement until after its announcement.

6. Since your industry is unhappy with the tracts proposed, assuming some of the 6,400 tracts will be set aside, what criteria would you propose to use in selecting different tracts?

   A: Industry believes the Secretary should return to the carefully drawn planning process set forth by the OCS Lands Act Amendments of 1978. That planning process allows lease sales to be scheduled in a predictable manner and affords all interested parties an opportunity to comment on the development of each 5-year leasing plan and on each lease sale through the pre-sale planning process. In our view the planning process and the five-year schedule afford the nation the opportunity to evaluate carefully OCS resource potential and environmental values.

7. How many jobs are in jeopardy if OCS leasing is not permitted to go forward off California?

   A: A complete shutdown of any further OCS leasing off California could result in the loss of as many as a quarter of a million jobs in the petroleum and related industries. For further information on the anticipated effects of no future leasing off California, please refer to the attached API Study on this subject.

8. What is the typical cost per barrel to develop the OCS resource?

   A: Development costs, especially in the OCS, are notoriously difficult to define and must be heavily qualified because there is no such thing as "typical cost per barrel". Each field differs from the rest due to depth of water, distance from shore, size and areal distribution of the resource, producing characteristics, environmental difficulties, etc. Because of these difficulties, we cannot give an appropriate answer to this question.

9. Is it economical given the current world glut?

   A: OCS projects Exxon is now developing are considered economical at current prices; otherwise we would defer them. However the current low demand for natural gas tends to make gas projects more difficult to justify than oil.

10. The Committee has heard that it can take as long as 16 years to move from lease-to-production on some OCS tracts with an average of about seven years. Is this an accurate representation?

    A: In frontier areas with hostile environments it may take as many as 15 years from lease-to-production. In advance of leasing though, years of geophysical exploration and evaluation must take place before a company may attempt to secure a lease. In more mature, less hostile areas such as near shore Gulf of Mexico lease-to-production times may be as few as two to three years.

11. If this is true, how realistic is the emergency energy need escape clause of the now defunct agreement?

    A: The emergency energy need portion of the California/Hodel agreement is largely meaningless. The more promising areas of the California OCS are far from the infrastructures necessary to support development once exploration has produced discoveries. Aside from the time it will take to lease and explore one must consider the time necessary to design and construct pipelines, production systems, and treatment facilities. The effects of a supply emergency likely would be felt fully by U.S. consumers well before any development could occur.

12. Is the industry willing to concede that there are certain tracts that should be excluded from development?

    A: The petroleum industry has proved time and again that it can and does operate safely in the marine environment. We believe that existing laws and regulations and industry operating practices are adequate to address any environmental concerns that may arise. Stipulations attached to leases can, for example, be tailored to address potential conflicts with fish, wildlife or other environmental values. Such careful safeguards eliminate the need for total leasing bans in all but the rarest cases.

13. If so, is it also prepared to negotiate with Secretary Hodel and the California Congressional delegation to come to an accommodation?

    A: It continues to be the position of this industry that OCS leasing decisions should remain within the framework of the OCSLAA and the 5-year lease sale schedule. The industry will not, indeed should not, engage in ad hoc tract-by-tract negotiations with either the Department of the Interior or a few members of the California Congressional delegation.

14. In your view, has this OCS consultation process caused us the same problems as with Sale 82 in the Atlantic, where most accommodations were made for the states, environmental groups, fishermen and other, then when it came time to bid the strictures were so great, no one came to bid?

    A: Yes. The difficulties with Sale 82 and the proposed agreement off California are the same: a lack of geologically and/or economically prospective acreage.

15. If possible, set aside your industry mantle for a moment. Let us assume you have good, basic, common sense, does it make sense for us to continue to import nearly 6 million barrels of oil per day when we have nearly 610 million barrels sitting untouched off Central and Northern California?

    A: In our view, the California OCS offers the best opportunity for major new discoveries of domestic oil and natural gas. MMS estimates that more than one billion barrels of economically recoverable oil remain to be discovered off California. Many in industry are more optimistic and believe that undiscovered recoverable resources may be 5 billion barrels or more. Such resource potential must not remain unexplored due to perceived environmental conflicts. It makes little sense to forgo possible domestic production in favor of foreign, often unreliable, petroleum.

16. Replacing that industry mantle, how has this situation affected your domestic production?

    A: Overall, we believe current domestic production levels can be maintained over time only if the nation has in place an OCS leasing program that provides for an orderly, predictable sale schedule that allows access to the promising areas of the federal OCS, especially California. Just to maintain current levels of energy production the petroleum industry must find 9 million barrels of oil and 50 billion cubic feet of natural gas each and every day. Without access to the best opportunities for new discoveries industry will fall short of that goal.

THE EFFECTS OF A BAN ON LEASING THE FEDERAL OUTER CONTINENTAL SHELF OFF CALIFORNIA FOR OIL AND GAS DEVELOPMENT

Ursula Guerrieri
Paul Kobrin
Deborah Ott
Michael Rusin

August 1985

The contents of this paper are for the purposes of study and discussion of government legislative or regulatory proposals and do not necessarily represent the views of the American Petroleum Institute or any of its members.

The Effects of a Ban on Leasing Federal Outer Continental Shelf Off California for Oil and Gas Development

1. Introduction and Summary

In each of the last four years, Congress has passed appropriations legislation for the Department of the Interior containing language prohibiting the leasing of large portions of the federal Outer Shelf Continental Shelf (OCS) off California for oil and gas development. The most recent legislation for fiscal year 1985 prohibited the leasing of 6,460 offshore tracts. These tracts cover an area of over 37 million acres, or about 63 percent of the entire California OCS planning area.

In mid-July, 1985, Secretary of the Interior Hodel and some members of the California Congressional delegation concluded six weeks of negotiations. These negotiations concerned whether and how to lease the right to search for and develop oil and gas resources off the California coast under the federally owned Outer Continental Shelf. On July 16 Secretary Hodel announced a tentative agreement. The agreement would prohibit the leasing of 6,310 of the 6,460 offshore tracts under the current moratorium until after the year 2000, except in a national emergency. The agreement would allow 150 of the 6,460 tracts to be released from the annually enacted moratorium and placed in a category allowing for their consideration for leasing under the process established by the Outer Continental Shelf Lands Act Amendments of 1978

(OCSLAA). The agreement is thus effectively a ban on the leasing of virtually all the contested area off California for the rest of the century.

This paper will concentrate specifically on assessing the effects of the recent proposed ban on the U.S. economy, national security, and the environment. The proposed ban covers the bulk of the California OCS planning area, and is nearly identical in geographical scope to the fiscal year 1985 legislated moratorium, implying similar withdrawal of resources.[1] The proposed ban, if put into effect, would formalize for the rest of the century the effective prohibition on leasing implemented by the FY '85 moratorium and its predecessors.

The amount of oil and gas resources in the area of the proposed ban will not be known with certainty until the tracts are thoroughly explored. However, some exploratory drilling already has taken place in the area covered by the ban, and hydrocarbons have been found in the five most affected central and Northern California basins. Minerals Management Service (MMS) estimates indicate reserves in excess of one billion barrels. However, estimates based on evidence from already leased California acreage suggest discovery magnitudes which could produce reserves on the order of five billion barrels, with peak production rates over six hundred eighty thousand barrels of

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1. For reasons given below, the 150 tracts not banned under the tentative agreement would have little effect on the total extent of resource withdrawal.

oil equivalent per day. Discoveries and production of this size could produce bonus and royalty payments of $31 billion (with a present value of more than $17 billion).

Prohibiting the development of these resources would not only lose these revenues but also have serious negative effects on the nation's economy and national security.

Using the results of a recent study that assessed the effects of changes in OCS leasing on the entire U. S. economy, it is estimated that as many as a quarter of a million jobs could be added by the direct and indirect effects of the development of oil and gas resources in the proposed ban area. A variety of industries would be negatively affected by the ban. These include not only the industries traditionally associated with oil and gas development, such as steel and machinery, but also other industries such as wholesale and retail trade, banking, insurance, and advertising.

The negative effects of the ban would be felt in all 50 states, with inland states such as Illinois, Indiana, Michigan, Ohio, and Pennsylvania particularly affected. These states supply a large portion of the industrial goods that directly and indirectly support offshore oil and gas development. The five states alone stand to lose as many as 35,000 jobs associated with OCS development. This evidence indicates that under the California leasing ban, the economy of the rest of the U. S. suffers.

Other economic costs would be incurred by the loss of U.S. production and the resultant increased demand for imports. Upward pressure on world petroleum prices would occur sooner and be greater than otherwise. This, plus the need to import more oil, would increase the payments made by the U.S. for foreign oil by as much as $6 billion per year (in 1984 dollars). Moreover, if a disruption were to occur with the U.S. importing more oil, the severity of crude oil price increases, GNP losses and unemployment increases would be greater.

The lost production through a ban on federal OCS leasing off California would increase U.S. dependence on foreign oil. In view of the possibility of future petroleum import supply interruptions, and the national security and economic costs associated with them, a wide range of experts have recognized and stressed the need for the U.S. to take efficient steps to limit its vulnerability to such interruptions. The proposed California leasing ban, by precluding development of substantial U.S. resources in this century, would raise the costs to the U.S. of maintaining its national security and would increase U.S. exposure to harm in the event of a supply interruption.

Opponents of leasing argue that in the event of a national emergency, leasing and development can proceed apace. However, leasing as a result of an emergency will not ameliorate any shortfall in supply. Leasing, exploration, and development lead times are long, on the order of years, and discovery rates uncertain. Under most import disruption scenarios, production from newly leased OCS areas is likely to come onstream well after the end of the emergency.

Finally, proponents of the ban argue that leasing and development in the ban area would harm the environment. This argument is baseless. The recent record of the offshore oil and gas industry indicates that environmental harm is minimal or non-existent. There is no evidence to indicate that a reduction in domestic OCS oil and gas production would result in significant environmental benefits.

The remainder of this paper develops these points in some detail and provides references to source material.

2. The Effects of the Proposed Ban on Oil and Gas Production

a. Past Exploration and Development of the California OCS

In order to gain insight into the oil and gas potential of the area affected by the proposed leasing ban, it may be useful to examine those portions of the California OCS already explored. The affected area lies both north and south of the Santa Maria Basin adjacent to Santa Barbara County.

The Santa Maria Basin has been the site of a string of substantial oil discoveries in recent years. Several are under development and a few fields further south are producing. The oil and gas in all or nearly all the fields is found in the Miocene Monterey geologic rock formation. The Monterey strata may not be confined to the Santa Barbara coast:

> Some geologists think the Monterey Pay, which has added perhaps 2 billion bbl to U.S. oil reserves since Exxon Co. U.S.A. launched the boom with Hondo field start-up in 1981, could extend along the entire California coastline.[1]

There are several significant discoveries undergoing development in the Santa Maria Basin. The largest of the fields is probably Point Arguello:

> The greater Arguello area's productive capacity has been estimated at a combined total of 200,000 b/d of oil and 120 MMcfd of gas from perhaps eight platforms. Prospective reserve estimates of the Arguello area fields range up to a combined total approaching 1 billion bbl, with 300-500 million bbl accounted for by Point Arguello alone.[2]

The highest bonus in U.S. history for a single offshore tract was the $333 million paid by Chevron and Phillips for tract 450 in the May 1981 lease sale. That tract overlies a portion of the Point Arguello field and will support the 20,000 b/d platform Hidalgo.

Other Arguello area discoveries include Point Pedernales which may produce up to 60,000 b/d from 100-350 million barrels of reserves and San Miguel with possibly 100 million barrels of reserves.

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[1] "Access Problems Cool Exploration Off California," Oil and Gas Journal, January 14, 1985, p. 65.

[2] "Big Finds Spur Push Off California," Oil and Gas Journal, January 14, 1985, p. 57.

Somewhat further south is the more mature Santa Barbara producing area. Exxon's Santa Ynez Unit holds three fields. The only one on stream, Hondo, produces about 40,000 b/d. Unit reserves are at least 400 million barrels. Exxon has proposed further development to raise output to 125,000 b/d. There are several other fields in the Channel area, some producing for many years and others under development.

Further south still is the Los Angeles-Long Beach-San Pedro area. Onshore in this area are some of this country's largest oil fields, such as Huntington Beach. Offshore lies the producing Beta field, expected to reach a plateau of 30,000 b/d from 200 million barrels of reserves.

The Los Angeles area is geologically different from the Santa Barbara and Santa Maria Basins. Nevertheless, all are productive and in between lies a portion of the area withdrawn from leasing.

The California OCS is lightly explored because so little of it is leased. Areas leased in recent years, namely the Santa Maria Basin, have been partially explored. Despite the ban or limitations on offshore exploration, substantial reserves have been found and significant production will follow -- perhaps 600 thousand b/d in the early 1990s.

The proven petroleum producing areas are enclaves within the larger withdrawn regions. In some instances, the withdrawn areas are geologically similar to adjacent, proven areas. This is the case with the Point Arguello area and the withdrawn region just to its north; the Monterey formation extends across the dividing line.

Although it is not widely recognized, some of the area subject to the proposed ban was previously leased and explored. In lease sale P1, held on May 14, 1963, 129 tracts were offered and 57 tracts leased. According to the U. S. Department of the Interior, Minerals Management Service:

> "Between September 1963 and September 1967, there were 20 exploratory wells drilled on the acreage leased under Lease Sale P1. Although exploration did not result in commercial production at the time, those wells helped to define areas for future consideration and establish the region's overall hydrocarbon-production potential.
>
> "The drilling took place off central and northern California and focused on six geological basins: Eel River, Point Arena, Bodega, La Honda, Ano Nuevo, and Santa Maria. Hydrocarbon shows were encountered in all but the Eel River basin. In the 1960s, relatively low demand for heavy, sour crudes, coupled with relatively high transportation costs, limited the possible development of oil from those basins.
>
> "Today, market conditions are more favorable for development of those fields. Offshore economic conditions have improved, and drilling technology has advanced.... Although all the 1963 leases have been relinquished or have expired, the recent discoveries of large oil fields in the Monterey Formation in the Santa Barbara Channel and the Santa Maria Basin continue to generate enthusiasm within the industry concerning the region's potential. These discoveries greatly enhance the possibility of additional discoveries in the La Honda, Ano Nuevo, Bodega, and Point Arena Basins further north.[1]

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[1] U. S. Department of the Interior, Minerals Management Service, Pacific OCS Region, "Pacific OCS Lease Offering, 1963, Northern and Central California," Technical Monograph, Los Angeles, California, 1983.

Thus, the proposed ban will prohibit leasing in the five offshore California basins where hydrocarbons already have been discovered through exploratory drilling. The preliminary agreement would allow leasing of tracts in the single basin (Eel River) off the Northern California Coast where no hydrocarbons have been found. This is one reason why many view the preliminary agreement as simply extending the previous one-year moratoria to the end of the century, despite the freeing of some 150 tracts.

b. Estimates of Potential Future Production in the Proposed Ban Area

The California OCS consists of a moderate number of relatively large fields with total proven reserves of about two billion barrels and production of 80 thousand b/d, heading towards several hundred thousand barrels per day. The size, proximity and geology of the withdrawn areas suggests their potential reserves and production are substantial.

In the discussion below two estimates of the reserves and production that would be foregone by the proposed leasing ban will be used. These estimates are presented in Table 1. The lower estimate, resulting in a peak production loss of 172,000 barrels per day of crude oil equivalent oil and gas production, results from use of Minerals Management Service reserve estimates. The higher estimate results from assuming that the undiscovered resources are at least of the same magnitude as those already discovered on leased acreage. The higher estimate

Table 1

Potential Effects of the Tentative Hodel-California Leasing Ban on Production, and Bonus and Royalty Payments

Reductions in:	Low Reserves	High Reserves
Area offered for lease (million acres)	36.2	36.2
Area leased 1/ (million acres)	3.6	3.6
Reserves, crude oil equiv. (billion barrels)	1.25 2/	5.0 3/
Peak production 4/ (barrels per day)	172,000	688,000
Bonus payments 5/ (billion dollars)	\$2.75	\$11.0
Royalty payments 6/ (billion dollars)	\$5.0	\$20.0
Net present value of royalties 7/ (billion dollars)	\$1.58	\$6.33

Notes:

1/ Assumes 10% of area offered is leased, the approximate historical figure for Gulf of Mexico offerings. Although it is likely that greater discoveries and higher reserves would result in greater interest in leasing and a greater area leased, both low and high reserve cases assume the same area leased. Subsequent results are unaffected by this assumption.

2/ Based on Minerals Management Service estimates.

3/ See text above for discussion of this estimate.

4/ Assumptions used to derive production profile from reserve estimates are from Paul Kobrin, "Production and Revenue Impacts of OCS Moratoria," American Petroleum Institute, Research Study #033, May 1984.

5/ Bonus payments are assumed to be equal to \$2.20 per barrel of reserves. Bonus payments are also approximately equal to the figure of \$780 per acre leased used in the recent Battelle/DRI study and are half the historical average of \$1590 per acre leased for the California OCS. See, "Economic Implications of Accelerated Leasing and Development of Outer Continental Shelf Oil and Gas Resources," Battelle Pacific Northwest Laboratories, Washington, D.C. June, 1985.

6/ Royalty payments assume a one sixth royalty and average price per barrel of \$24.

7/ The net present value calculation uses the assumed production profiles in Kobrin, and a discount rate of 8%.

in Table 1 posits hydrocarbon reserves of 5 billion barrels. This latter assumption is a reasonable alternative, since only a small fraction of the California OCS has been offered for lease and the results from the areas under lease have been highly favorable. For example, the area affected by the ban contains over 36 million acres, while less than nine million acres of the California OCS have been opened to leasing to date. Thus, the area under the proposed ban is over four times the area already offered for leasing.

A previous study[1] estimated the production and revenue effects of the Congressional moratoria on lease sale number 80 originally scheduled for Southern California in 1984, and lease sale number 73 off Central and Northern California originally scheduled for 1985. The same assumptions and methodology were used to derive the peak production loss estimate of 688,000 barrels per day of crude oil equivalent hydrocarbons (oil and gas) for the high reserves estimate. The assumptions used to calculate bonus and royalty payments are conservative; values at or below historical averages are used. Resulting bonus payments lost to the government in the higher reserve estimate case are $11 billion. Royalty payments lost in aggregate are $20 billion. However, royalty payments are received much farther in the future than bonus payments. Taking this into account and discounting for the time value of money at an 8 percent rate yields a net present value of the royalties of $6.33 billion. Overall, then, the present value if the area is not leased of the potential receipts lost to the federal government from bonus and royalty payments, given a five billion barrel reserve estimate, is over $17 billion.

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[1] Paul Kobrin, "Production and Revenue Impacts of OCS Moratoria," American Petroleum Institute, Research Study #033, May 1984.

3. Effects of the Proposed Ban on the U. S. Economy

The most obvious and immediate effect of a ban on most leasing of the federal OCS off California for oil and gas development is a curtailment of California offshore drilling activity and associated onshore support activities. However, a major reduction in the level of exploration and development in this segment of the oil and gas industry may also reduce employment and output in other industries, especially major OCS suppliers, and adversely affect state economies where such industries are concentrated.

A recent study by Battelle Pacific Northwest Laboratories and Data Resources, Inc. (DRI)[1] quantifies secondary and tertiary employment and output effects which are associated with different levels of OCS leasing. Secondary effects are those primarily found in industries directly related to OCS activity such as oil field machinery and pipelines. Tertiary effects are those found in sectors such as wholesale and retail trade or banking and insurance.

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[1] Economic Implications of Accelerated Leasing and Development of Outer Continental Shelf Oil and Gas Resources, Prepared for The American Petroleum Institute by Battelle Pacific Northwest Laboratories and Data Resources, Inc., June 1985.

a. Method of Analysis

The Battelle/DRI study estimates the U.S. and regional employment and output effects of two leasing scenarios. One is a Base Case, corresponding to a leasing rate sometimes achieved prior to 1983, which assumes that 2.0 million acres are leased per year from 1985 to 2000. Approximately 13.6 percent of the total acreage is assumed to be leased off the Pacific Coast. An Alternative Case, similar to the accelerated leasing rate in 1983-84, assumes that 7.38 million acres are leased per year over a comparable period, with 5.1 percent assumed to occur off the Pacific Coast. These leasing scenarios, along with corresponding assumptions for finding rates, direct factor inputs, and financial requirements provide the key assumptions needed to develop economic estimates.

The DRI macroeconomic model is used to determine the overall level of economic activity associated with each leasing scenario for several benchmark years. The DRI Interindustry Modeling System, an input/output model, is used to disaggregate these effects across industries and states. The difference in the estimated effects between the two OCS leasing cases is a measure of the degree to which expanded leasing stimulates the U.S. and state economies and individual industries.

b. General Results

The findings indicate widespread gains in employment and output across industries and states, with the largest gains concentrated in those coastal states where significant offshore activity already exists. Important gains also are found for inland states such as Illinois, Indiana, Michigan, Ohio, and Pennsylvania. Industries which show the largest gains are generally those directly involved in OCS activity or which are major suppliers to the OCS industry. However, sizeable gains also are found in such industries as wholesale and retail trade, banking, insurance, and advertising. In fact, the largest employment gain is in the miscellaneous business services sector. These gains are attributed to accelerated leasing in general, and are not solely attributable to leasing off the California coast.

The Battelle/DRI study estimates incremental peak oil and gas production from all offshore areas as a result of accelerated leasing to be approximately 2,521,000 barrels per day of crude oil equivalent in 1995. This translates into an additional $4.18 billion in annual royalty payments.[1] It has been estimated above that the area included in the proposed California ban might support peak production between 172,000 and 688,000 barrels per day, or between 6.8 percent and 27.3 percent of the incremental peak production estimated by Battelle/DRI. If these percentages are applied to output and employment results contained in the Battelle/DRI report, then estimates of the likely range of employment effects of the proposed California ban on key industries and states can be made. These potential job losses by selected industry and for five key inland states for 1995 are shown in Tables 2 and 3.

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[1] This calculation is based on a $24 per barrel price and a 1/6 royalty rate.

Table 2. Estimated Job Losses by Industry Attributable to the Proposed California Offshore Leasing Ban--1995

Industry	Estimated Job Losses	
	Low	High
Crude Petroleum and Natural Gas	2,482	9,964
New Petroleum Pipelines	1,938	7,782
New Oil and Gas Wells and Exploration	2,179	8,747
New Construction, Miscellaneous*	2,145	8,612
Maintenance and Repair, Other	1,183	4,749
Blast Furnaces and Steel Mills	2,578	10,351
Oil Field Machinery	3,099	12,443
Shipbuilding and Repairing	960	3,854
Boatbuilding and Repairing	703	2,822
Motor Freight	1,021	4,100
Water Trans. and Related Services	1,020	4,097
Transportation Services, Miscellaneous*	762	3,060
Wholesale Trade	2,908	11,673
Retail Trade	1,946	7,811
Banking	728	2,924
Insurance Carriers and Agents	1,036	4,161
Miscellaneous Business Services	7,667	30,872
Advertising	875	3,514
Miscellaneous Professional Services	1,256	5,044
Eating and Drinking Places	1,407	5,649
U.S. TOTAL**	66,091	265,337

*Not elsewhere classified.

**Total includes job losses for many industries not separately listed here.

Table 3. Potential Employment Losses by State Attributable to the Proposed California Offshore Leasing Ban--1995

State	Estimated Job Losses	
	Low	High
Illinois	1,938	7,780
Indiana	1,196	4,802
Michigan	1,223	4,910
Ohio	1,987	7,978
Pennsylvania	2,275	9,132

The assumption of proportionality is commonly used in the development of many economic models, especially input/output models. Although changes in real output and employment may not be strictly proportional to changes in oil and gas production from the California OCS, the aggregate effect and relative ranking for industries and non-coastal states is probably reasonably accurate.

The industries shown in Table 2 are among those that gain a significant number of new jobs as a result of expanded OCS leasing. The employment figures in the tables bracket the likely job losses attributable to the California OCS leasing ban. The lower figures are based on the assumption that the oil and gas potential in the affected area would support peak production of 172,000 barrels per day while the higher figures are based on peak production of 688,000 barrels per day.

The data in Tables 2 and 3 indicate that loss of oil and gas production from the affected California offshore area is likely to diminish employment in a wide variety of sectors, many not directly related to OCS activity. Furthermore, adverse consequences of the leasing ban are not restricted to the State of California. Potential employment losses in just the five inland states listed in Table 3 account for approximately 13 percent of the estimated total employment loss. These states are particularly affected because they supply, both directly and indirectly, the increased quantities of steel and machinery that would be required as a result of OCS development.

c. California Interests and the Rest of the U.S.

The state of California has a population of about 25 million, the largest in the United States but still only about 11 percent of the total. California also has the largest Congressional delegation. Only a part of that delegation negotiated the proposed ban with the Secretary of the Interior, and another part formally protested the proposal in a letter to the President.[1]

It can be argued that the previously legislated moratoria and recent tentative agreement for the federal OCS were tailored mainly for the interests of groups within the state of California, and do not represent the interests of the nation as a whole. Some evidence that the tentative agreement chiefly reflects California interests lies in the 150 tracts actually released for leasing, as well as in those banned till after the year 2000.

Two-thirds of the released tracts are in the Eel River Basin off the far northern coast of California. These tracts apparently are included not because of resource potential, but because of local political support.

> [Representative] Panetta said that willingness of some northern towns to accept offshore oil drilling "attracted our attention" during negotiations. The City Council in one such town, Eureka, voted earlier to support offshore drilling in the area, and two-thirds of the lands released for exploration are near the town, ...

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[1] Letter from 11 California Congressmen to the President of the United States dated July 31, 1985.

> Representative Douglas H. Bosco (D-Occidental), whose district abuts the [Eel River] basin, said he hopes the activity will boost the region's economy, now dominated by a stagnant logging industry.[1]

At the same time, areas with high resource potential such as Santa Monica Bay are withdrawn under the tentative agreement. The City of Santa Monica has local ordinances prohibiting oil and gas development, and is opposed to activity off its coast. Thus, it appears that the proposed agreement reflects the views of town councils, such as those of Eureka and Santa Monica, but ignores the competing interests of the rest of the country in gaining the benefits from the federal OCS.

The Congress may have recognized the potential conflict between state and national interests when it amended the Outer Continental Shelf Lands Act:

> Timing and location of exploration, development, and production of oil and gas among the oil- and gas-bearing physiographic regions of the Outer Continental Shelf shall be based on a consideration of...an equitable sharing of developmental benefits and environmental risks among the various regions ....[2]

The proposed ban clearly violates the principle of "an equitable sharing...among the various regions." Table 4 helps put this in further perspective. While California consumes over 8 percent of

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[1] Michael Wines, "Oil Drilling Compromise Reached," *Los Angeles Times*, July 17, 1985, p. 3.

[2] 43 U.S.C. 1344(a)(2).

Table 4. Comparing California with other Leasing on the Outer Continental Shelf

	Gulf of Mexico	California	All Areas
No. Lease Sales (1954-84)	50	10*	85**
Acreage in Planning Areas	139,000,000	59,000,000	993,000,000
Acres Offered in Sales	218,193,931	8,652,707	330,944,286
Acreage Leased	26,271,820	1,959,174	38,140,680
Acreage Under Leased	18,918,988	937,116	24,544,365
Percent of Planning Area Under Lease	13.6%	1.6%	2.5%
Percent of Planning Area Ever Leased	18.9%	3.3%	3.8%
Acreage Under Moratorium (FY-85)	0	37,100,000(est)	45,300,000(est)
Percent of Planning Area Under Moratorium	0%	62.9%	4.6%
Acreage Under Hodel '85 Agreement for Ban	0	36,200,000(est)	36,200,000(est)
Percent of Planning Area Under Hodel Ban	0%	61.4%	3.6%

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*Includes 1 reoffering sale for acreage offshore California.

**Includes 2 reoffering sales for Alaska acreage; one reoffering sale for Alaska acreage included acreage offshore the Atlantic Coast and offshore California.

the nation's natural gas, it produces only about 2 percent, virtually all of it offshore. Likewise, although California has a substantial onshore oil production industry, the offshore has been relatively less developed. With six percent of the federal OCS planning areas offshore California, only 2.6 percent of the OCS acreage offered has been off California.

4. Effects on National Security

a. National Security Concerns

The literature indicates that oil imports play a significant role in U.S. foreign policy and defense planning.[1] Foreign policy makers seek to reduce the probability of future disruptions of oil imports through political agreements and actions. Military planning to defend strategic oil producing regions or transport routes can serve a similar deterrent function.

The possibility of disruption makes foreign supplies less secure than domestic supplies. Costs are incurred in the form of public and private measures to reduce the cost of a disruption, should one occur. These include public and private stockpiling, including the Strategic Petroleum Reserve (SPR) and military stocks, as well as emergency preparedness planning. Increases in these direct costs can be expected to result from increases in petroleum imports.

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[1] For a general review of foreign policy literature on the subject of petroleum imports and national security, see Ursula Guerrieri, "Petroleum Imports and National Security," (Draft Working Paper), American Petroleum Institute, May 1985.

Even if oil import disruptions to the U.S. did not appear to pose serious political or military problems, the need to maintain access to supplies and to assure that strategic oil-producing regions do not fall into potential enemies' hands causes several foreign policy effects. Observers have suggested such effects as (1) diplomatic actions to maintain access to imported petroleum, (2) weakening of relations with non-oil exporting allies, (3) detrimental impacts on worldwide U.S. interests, (4) resurgence of the political and economic strength of OPEC nations, and (5) military costs of defending shipping lanes and strategic oil exporting regions.

Furthermore, historical precedents suggest that the U.S. level of exposure need not be high for a disruption to have serious consequences. In 1973, for example, when OPEC imports represented only 17 percent of total U.S. petroleum demand, a seven percent worldwide import shortfall led to severe market disruptions. In 1984, OPEC imports represented a similar level of total U.S. petroleum demand. As U.S. and other industrial nations' demand rises and non-Mideast reserves are depleted, rising dependency on Mideast petroleum imports is expected.

As the importance of Middle East oil exports in the world petroleum market rises the U.S. strategic interest in the Middle East is likely to increase and, as a result, there would be increased rationale for committing additional military, foreign aid, and diplomatic resources to the region. Increases in U.S. petroleum imports beyond those already expected would make all of this happen faster and to a greater degree.

In view of the likelihood of future petroleum import disruptions, and the national security costs that increase with rising dependence on petroleum imports, many observers recommend that the prudent course for U.S. policy is to encourage the efficient development of domestic energy resources and to promote efficient energy conservation. The proposed California moratorium, by precluding development of important domestic petroleum resources in this century, would heighten the nation's dependence on insecure petroleum imports and thereby jeopardize U.S. energy security interests.

b. Economic Costs

Increased U.S. demand for petroleum imports would impose economic costs on the U.S. economy. Present downward pressure on world oil prices would be reduced by an increase in imports in the near to intermediate term, and the rate of forecast price increases in the long term (after existing excess world oil production capacity is diminished) would accelerate.[1]

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[1] For a discussion of world petroleum market conditions under which OPEC could regain power to raise prices, see, for example, Donald A. Norman, "Implications of Different Oil Price and Economic Growth Trends for the World Petroleum Markets," American Petroleum Institute Discussion Paper #041, May 1985. For a discussion of the economic costs of petroleum price increases see, for example, Daniel Yergin, "Crisis and Adjustment: An Overview," in Global Insecurity, Daniel Yergin and Martin Hillenbrand, editors, Atlantic Institute for International Affairs, 1982.

Petroleum price increases would also increase the U.S. balance of payments deficit. Coupled with rising imports, the adverse effect on the nation's payments for foreign oil could be substantial. In 1984, for example, net payments for imported oil amounted to almost $53 billion -- an amount about one-third the size of the nation's total trade deficit. Assuming a 688,000 b/d rise in imports as a result of the proposed California moratorium by 1995 -- about a thirteen percent increase over 1984 levels -- an increase in payments for foreign oil in excess of six billion dollars annually (in 1984 dollars) would occur.

Further, at higher import levels, any disruption of oil supplies would result in greater physical shortages or more severe oil price shocks than if imports were to remain at or below current levels. For example, Professors James Sweeney and Michael Boskin of Stanford University found that if imports rose by 1.1 mmbd by 1990, the severity of crude oil price increases, GNP losses, unemployment, and federal deficit increases over the next decade that would result from each type of import disruption surveyed would significantly increase over conditions projected from current import levels.[1] A lesser increase in petroleum imports of 688,000 b/d would have proportionate effects on these factors. If the base level of imports were increased by 688,000 b/d, real GNP would decline in the event of a seven mmbd disruption by about 0.9 percent more, and unemployment would rise about 0.4 percent more than otherwise.

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[1] James L. Sweeney, et al., Impact of the Treasury Department's Proposal 'Tax Reform for Fairness, Simplicity and Economic Growth' on Oil Security, prepared for the American Petroleum Institute, May 1, 1985.

c. Leasing in the Event of a National Energy Emergency

Petroleum exploration and development processes involve complex geological, analytical, managerial and legal efforts which require anywhere from a few years to well over a decade to culminate in production should commercial reserves be discovered. Thus, it is unreasonable to assume that scheduling lease sales in the California OCS moratoria area in the event of a national emergency will make any contribution to ameliorating disruption induced shortfalls.

Because each exploratory location has its own unique geological and geophysical conditions, there is no standard time frame for the period from the beginning of exploration to the beginning of production. A recent National Petroleum Council report concludes that the length of time from start of exploration until production begins typically ranges from five to ten years.[1] However, as much as fifteen years or longer could be required in hostile physical environments, in deepwater and in the event of legal or regulatory delays.

The OCS leasing process itself, including "call for information," "area identification," draft and final "EIS preparation," "notice of sale," "bid review," "lease issuance," and other required steps typically takes about two years. These activities, which must be completed before exploration begins, can take much longer in the event of litigation or other challenges to the proposed lease sale.

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[1] National Petroleum Council, Environmental Conservation, 1982, p. 63.

Once the lease is issued, the operator's activities are strictly regulated and monitored by the Minerals Management Service (MMS). Except for preliminary activities, no exploratory drilling can begin on a leased block until an exploration plan has been submitted and approved. An Application for Permit to Drill (APD) must be submitted and approved prior to drilling. Notification of Coastal Zone Management (CZM) consistency or presumptive concurrence also must be obtained. An additional APD must be obtained each time a well is deepened or reworked. Also, other federal permits from the United States Geologic Survey (USGS), the U.S. Army Corps of Engineers, the Environmental Protection Agency (EPA), and others are typically required prior to drilling.

Before development and production activities can begin, the operator must submit a development and production plan, an environmental report, and an oil spill contingency plan to the MMS. An EIS also may be required, along with CZM consistency certification. Finally, as with exploratory drilling, other federal permits may be required for platform placement, atmospheric discharges, etc. If a pipeline is required for transport to shore, rights-of-way must be obtained from the MMS along with permits from the U.S. Army Corps of Engineers, the Department of

Transportation, the Federal Energy Regulatory Commission (FERC) and state and local agencies. Environmental reviews by other federal agencies such as the Fish and Wildlife Service are included in the right-of-way permitting process.

It is evident from the foregoing that an OCS tract cannot be explored and made productive for a considerable length of time after issuance of the lease, even under favorable conditions and assuming availability of necessary equipment and manpower. Opposition at any phase can postpone production for several years, especially if judicial proceedings are initiated.

A look at an example of the recent production experience on the Pacific OCS may be instructive. Production on tracts from one sale, No. 35 in December 1975, began on the Beta unit in January 1984 -- nine years after the sale.[1] While the time required to bring commercial discoveries to production can vary greatly, the trend has been toward longer development times, as regulatory requirements become more complex and activities increasingly are subjected to legal challenges. It should be clear that resuming the leasing process in areas subject to the moratorium in the event of a national energy emergency could make no contribution to reducing the effects of a short- to medium-term import disruption.

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[1] MMS, Pacific Summary Report, MMS 84-0075, July 1984, p. 24.

5. Environmental Effects of OCS Petroleum Operations

a. Overview

The argument that OCS development causes serious environmental degradation has persisted for decades. However, the history of production in the United States OCS and an immense body of scientific research, both in the laboratory and in the field, conclusively demonstrate that the environmental damage of OCS petroleum operations has been minimal.

Primary responsibility for both OCS leasing and post-lease management rests with the Minerals Management Service of the Department of Interior. Operators are required to comply with many operating orders and stipulations whose purpose is environmental protection. Stipulations also are used to protect unique cultural resources. Drilling rigs are continually monitored and subject to unannounced inspections from federal agencies which are empowered to suspend operations and order corrective actions if harmful amounts of discharges are found.

Every operator is fully responsible for cleanup of a spill if one should occur. Operators are required to develop a comprehensive oil spill contingency plan that includes a trained standby organization with authority to act immediately in the event of an emergency. Typically, offshore operators form mutual assistance organizations that make available a pool of material, equipment and expertise such as Clean Seas (CS) and Clean Coastal Waters (CCW) in the Santa Barbara Channel and Santa Maria Basin.

b. Stages of Offshore Petroleum Operations

Initial exploration efforts to identify oil or gas prospects have very little environmental impact, beyond temporary, localized disturbance.

The mechanics of drilling a well involve pumping drilling fluids (typically water-based "muds") down the center of a rotating string of drill pipe to the drill bit, where the mud exits through nozzles, picks up drill cuttings (rock fragments) and returns to the surface.

An extensive literature exists on the fate and effects of discharges of drilling muds and cuttings on the marine environment.[1] Generally, measured detrimental effects have been found to be local, minor and temporary.

A typical offshore project will involve the drilling of numerous exploratory and development wells. Development drilling results in the same discharges as exploratory drilling but may be spatially more concentrated since over 50 wells may be drilled from a single platform.

When oil and gas are produced, waters associated with the petroleum reservoirs, known as formation or produced waters, also are produced. Formation waters usually are discharged into the sea after passing through an oil-water separator to meet U.S. EPA requirements. Extensive studies of the impact of formation water discharges on marine organisms show little detrimental effect.[1] No evidence of any significant trace metal contamination of marine organisms or sediments attributable to oil and gas operations has been found.

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[1] See, for example, B. J. Galloway, An Ecosystem Analysis of Oil and Gas Development on the Texas - Louisiana Continental Shelf, FWS/OBS-81/27, August 1981; National Academy of Sciences, Drilling Discharges in the Marine Environment, 1983. Conference Proceedings on Environmental Aspects of Chemical Use in Well Drilling Operations, EPA-550/1-75-004, 1975; and Research on Environmental Fate and Effect of Drilling Fluids and Cuttings, (Proceedings of API/EPA Symposium, January 1980.

Research has demonstrated that the submerged surfaces of drilling platforms act as artificial reefs which provide surfaces for the attachment of encrusting organisms (primarily barnacles) and offer feeding grounds for numerous fish species. It is widely accepted in the Gulf of Mexico that the approximately 3,300 oil and gas platforms function as excellent artificial reefs and have had beneficial effects on recreational fishing. Platforms on the California OCS, while few in number, have the same enhancement effect on fishing. They also act as an attraction to populations of sea lions, due to the availability of fish.

Transportation of the oil or gas to onshore receiving facilities may be by pipeline or vessel. OCS operating regulations require burial of pipelines in water depths of less than 200 feet.

It is difficult to generalize about the onshore impacts of logistical support facilities such as terminals, tank farms or gas processing plants. Such socioeconomic and environmental impacts are very site specific. While existing local land use and employment patterns will be altered by the new facilities,

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1. See, for example, C.B. Koons, et al., "Environmental Aspects of Produced Water from Oil and Gas Exploration Operations in Offshore and Coastal Waters," Journal of Petroleum Technology, June 1973, pp. 723-729.

these could be viewed as having positive as well as negative effects.

It also is difficult to characterize or quantify the onshore visual impacts of offshore petroleum operations; visual impact upon the aesthetic resources of an area depend upon the viewers' values.

Because modern platforms can accommodate 50 or more wells, relatively few are needed in the typical offshore oil and gas field. In addition, platforms on the federal OCS usually are beyond the view of observers along the coast at sea level.

Most platforms visible from the shore are in state waters (generally within three miles from shore). In some instances, mitigating measures have been taken to make their appearance more attractive. In state waters off Long Beach, California, close-in drilling rigs are disguised as buildings on several artificial islands.

c. Accidental Impact

Oil spills into the open ocean or near shore areas, if they were to occur, are the major potential source of accidental damage. However, stringent regulations, requiring extensive preventive measures including production controls, training programs and spill contingency plans, make large accidental spills extremely unlikely.

From 1975 to 1983, federal offshore areas produced more than 2.5 billion barrels of oil and 37.7 trillion cubic feet of natural gas. Spillage from incidents of 50 barrels or more on the OCS during this entire period totaled 17,939 barrels of oil, or about one barrel spilled for every 140,000 barrels produced. No oil from exploratory or development activities reached the U.S. coast in significant quantities.[1]

It is instructive to compare spills from OCS operations with those attributable to other sources. For example, the natural seepage of crude oil from Coal Oil Point near Santa Barbara is estimated to discharge 22,000 to 36,000 barrels of oil every year.[2] This annual seepage is greater than the entire amount of OCS spillage estimated for the 1975-1983 period.

If an oil spill occurs, the resulting damage is dependent on many factors including: its size and duration, the type of oil spilled, dispersal, clean-up and containment methods, fragility of exposed environments, season and weather conditions.

When an oil spill occurs in the open sea, biodegradation of the oil will occur relatively quickly with good water circulation. The dilution of petroleum in the open sea makes it improbable that a spill in the deep sea could reach bottom-dwelling marine life forms in sufficient amounts to be toxic. Coastal effects may be more severe, particularly in fragile areas. However, significant long-term damage has been documented

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1. U.S. Department of Interior, Minerals Management Service, Federal Offshore Statistics, MMS No. 84-0071, September 1984.

2. U.S. Department of Interior, Minerals Management Service, From Policy to Production, November 1983.

only for a few confined areas which were characterized by spills of toxic refined products and/or improper clean-up methods. Recent studies have concluded that there is no evidence that food chain accumulation occurs.

The environmental damage of oil spills is reversible. Studies of areas which experienced oil spills, such as Santa Barbara in 1969 and the Mississippi River Delta in 1970, have concluded that environmental damage is largely or wholly reversible over time.[1]

Data compiled by the National Academy of Sciences (NAS) attribute only a small percentage of the oil in the world's oceans to offshore petroleum production. The NAS estimates that only 1.6 percent of oil entering the marine environment annually (due to spills and routine operations) results from offshore petroleum production. Marine seeps, such as those at Coal Point near Santa Barbara, account for an estimated 6.2 percent -- almost four times as much as offshore production -- and municipal wastes account for an estimated 21.8 percent -- almost 14 times as much as offshore production.[2] Only a tiny fraction of the oil in the world's oceans -- about 5/100ths of 1 percent of the total -- is attributed by the MMS to U.S. OCS petroleum operations, including drilling, production, pipelines, and transportation to shore.[1]

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[1] B.J. Galloway, An Ecosystem Analysis of Oil and Gas Development on the Texas-Louisiana Continental Shelf, U.S. Department of Interior, BLM, FWS/OBS-81/27, August 1981.

[2] As reported in U.S. Department of Interior, Minerals Management Service, Federal Offshore Statistics, MMS No. 84-0071, September 1984.

d. The California OCS Experience

The Santa Barbara blowout in 1969 is the only blowout in the entire history of OCS petroleum operations that resulted in a significant amount of oil reaching the shore. The size of the Santa Barbara spill has been estimated in the range of 10,000 to 77,000 barrels.[2] The U.S.G.S. accepts the lower figure. Seepage from the blowout location after the initial blowout through 1983 has been estimated at 26,178 barrels.[3] Continual natural seepage has existed in the area before and after the blowout. More than 2000 natural seeps have been identified in the Santa Barbara Channel area. These seeps release an annual volume of oil estimated at between 14,600 and 244,000 barrels. The latter figure in one year exceeds all the oil lost to date in the 1969 Santa Barbara blowout.[4]

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1. As reported in U.S. Department of Interior, Minerals Management Service, Federal Offshore Statistics, MMS No. 84-0071, September 1984.

2. U.S. Department of Interior, Minerals Management Service, Outer Continental Shelf Oil and Gas Blowouts, 1979-82, Report No. 83-562, August 1983.

3. U.S. Department of Interior, Minerals Management Service, Federal Offshore Statistics, MMS 84-0071, September 1984.

4. California Coastal Commission, OCS Project Task Force, Office of Planning and Research, Offshore Oil and Gas Development, Southern California, vol. 1, October 1977.

As noted earlier, studies conclude that the environmental damage of the Santa Barbara blowout has been completely reversed.

From 1970-1984, there have been no oil spills in excess of 50 barrels on the Pacific OCS. Annual spillage has been estimated as ranging from less than one to 41 barrels since 1978.[1] Assessments of the impacts of routine OCS petroleum operations on the California marine environment generally find no significant adverse effects.

From the above evidence, it is clear that leasing offshore California is unlikely to impose significant environmental costs on that state. The major argument made in opposition to such leasing thus is without substantive merit. Reduction of future offshore oil and gas production will not result in much environmental benefit to the state or to the country as a whole.

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[1] U.S. Department of Interior, Minerals Management Service, Federal Offshore Statistics, MMS 84-0071, September 1984.

APPENDIX II

Additional Material Submitted for the Record

TESTIMONY OF CONGRESSMAN ROBERT E. BADHAM

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES

U.S. SENATE

September 17, 1985

Dear Mr. Chairman and Members of the Committee:

I want to thank you for the opportunity to address the Committee today on the issue of the Outer Continental Shelf oil and gas leasing program for the State of California. This issue is of vital importance to the 40th District I represent since it involves the coastal cities of Newport Beach, Laguna Beach, and Huntington Beach. In addition, this issue affects many more people than those who live in those communities as millions of Americans consider this part of the coast as a primary scenic, recreational and marine life resource.

Since 1982, an annual moratorium has been included in the Interior Appropriations bill which has prevented any new oil and gas exploration off the California coast. In the accompanying report for the 1985 Interior Appropriations bill, it was specifically stated that the moratorium would be continued for another year; however, there was also the clear direction in the report language that an additional year would allow adequate time for development of a comprehensive and worthwhile oil leasing program so that the Secretary of the Interior could carry on with his responsiblity of devising a five year leasing plan as mandated in the 1978 OCS Lands Act.

In the past 6 months, an ad hoc group of California Members has been meeting to achieve that objective and on July 16, a preliminary agreement was announced that would release 150 tracts for oil and gas leasing off the coast of California. At this point, I'd like to point out that I support the idea of such a compromise, but I was disappointed that the original Members who initiated the negotiations with Secretary Hodel did not inform the entire delegation from the beginning of their activities. I think that the very nature of the ad hoc negotiations process disenfranchised many interested parties whose input and ideas could have helped produce a workable, productive and environmentally sensitive offshore leasing program for California. I did make every effort to make known both to the Secretary and to those Members who initiated the discussions my views as to how drilling would effect Orange County. Unfortunately, I could not, and do not, support the preliminary agreement as written because the concerns that I expressed were not adequately taken into consideration in developing the compromise. My opposition to the contents of this agreement goes well beyond parochial interests, as I do feel there is overwhelming evidence to support long-term protection for the vital coastal resource in Orange County.

Specifically, let me focus for a moment on the extent and nature of those concerns pertaining to my District, which includes 25 miles of the California Coast judged by an Interior Department study to be one of the top six coastal resources in the nation in terms of scenic beauty and pristine conditions. A large section of this Orange County coast was judged to have greater esthetic value for preservation than areas such as Big Sur, which this tentative compromise proposes for protection through the year 2000. It is therefore inexplicable to me that coastal Orange County was not granted the same fair consideration during preparation of this plan.

The negative impact that such development would have upon the Orange County economy far outweighs the potential economic benefits which might accrue from offshore petroleum development. According to a recent community attitude survey conducted by the University of California at Irvine, it was demonstrated that citizens from all walks of life, from inland as well as coastal cities and from all political persuasions are in opposition to expanded offshore exploration in Orange County waters by margin of nearly two to one.

Their opposition, which has been manifest by thousands of letters, tens of thousands of petition signatures and public protests, is for many and varied reasons. Consider, for example, the fact that tourism is one of the County's major industries and the beaches rank second only to Disneyland as the destination of choice for the tens of millions of Americans who come here to spend their holidays each year. Visitors last year spent nearly $4 billion in Orange County, generating more than $100 million in taxes and creating more than 100,000 jobs. It is my fervent belief that the introduction of offshore oil production facilities to this tourism-intensive region for the first time would be irresponsible and ill-advised, particularly given the relatively limited quantity of known petroleum reserves in the area. While there is considerable difference of opinion as to the environmental risks involved in offshore production, any risk to this sensitive coastal resource is too great until such time as the national need is overwhelming or until technology has reached the point of rendering such heavy industrial operations environmentally and esthetically inoffensive.

It is vital to focus on the issues involved by using the perspective of data and fact. Fundamentally, there is little to support inclusion of the six

Orange County tracts in the tentative agreement. In fact, the petroleum industry rates these tracts to be of only moderate to limited value. Let's put into perspective the actual resource value of these six tracts.

1) Oil reserves off the Orange County coast are sufficient to fuel the national economy (at current rates of consumption) for no more than two or three days.

2) Some of the proposed tracts off the county shoreline were once leased to oil companies but deeded back to the Interior Department.

These are my concerns as the preliminary agreement relates to my District. During his tour of California, the Secretary had the opportunity to hear several of those arguments at a town hall meeting that I arranged in Newport Beach. The Secretary also traveled to 10 other Congressional Districts in California where interested parties from all sides of the issue had the opportunity to testify and express their opinions about the agreement.

As it stands now, there is no defined plan of how the negotiations will proceed and whether or not they will continue in the prior fashion. In my view, the current agreement, as presented in July, clearly needs some adjustment, particularly off the coast of Orange County. I am pleased to point out that there now appears to be consensus among the delegation that the significant environmental and economic concerns of Orange County should be addressed and given equal weight in the determination of a fair and effective program.

In my opinion, we should continue to work out a viable agreement that the Administration, the delegation, and most importantly the people of California can support. It would be counterproductive to the OCS program and efforts to enhance U.S. energy production were a California OCS plan to be pursued which would inevitably be tied up in lenghthy litigation. I prefer trying to finalize a workable agreement now. However, if an acceptable compromise cannot be reached, taking into consideration the attributes of the Orange County coast, I would support the extension of the existing California moratorium.

Let me say to those who claim a California moratorium threatens our national security. It must be noted that the entire area included in the moratorium area constitutes less than four percent of the total U.S. Outer Continental Shelf acreage currently eligible for lease. Even with a blanket moratorium in place in California, more than 170 million acres, containing more than 70 percent of the nation's total estimated offshore reserve would be available for lease during 1986 alone. The leasing restriction also would not reduce California's total production of 1.2 million barrels a day -- production which reached an all-time high of 412 million barrels during 1984, even with the current offshore moratorium in place.

Again, it is essential that there be adequate time to develop a balanced program through a common sense approach which adds to our energy resources without threatening the economic base and valuable national coastal resource which is already utilized to the benefit of countless Americans. You can be sure that I will work toward that end.

BEST COPY AVAILABLE

STATEMENT FOR THE RECORD
OF
JOHN S. HERRINGTON
SECRETARY OF ENERGY

BEFORE THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
U.S. SENATE

SEPTEMBER 17, 1985

INTRODUCTION

Mr. Chairman and Members of the Committee, I appreciate the opportunity to present the Department of Energy's views on Outer Continental Shelf (OCS) development.

The topic of this hearing is one of the most important questions facing our Nation. I think all of us realize that the oil and natural gas production from the OCS has already played a major role in increasing U.S. energy stability and security. But more importantly -- if these resouces are properly developed, oil and natural gas from the OCS will play a critical role in strengthening U.S. energy security in the future.

At a time when OPEC is struggling to keep oil prices from declining and there is more than 10 million barrels per day of shut-in oil production capacity around the world, it is tempting to forget that our Nation did not always have energy security. In the 1970s, many were convinced that we faced a future we could not control. Energy prices were skyrocketing, sending economic shockwaves around the globe. Our energy supplies were poorly allocated through government intervention, leading to long gas lines and disruptions in industrial activity. America seemed to be at the mercy of the OPEC cartel.

Following the President's lead, we have begun to regain control over our energy future and have taken a variety of actions to strengthen our energy security. But continued progress will not come automatically -- America must continue to locate, develop, and utilize new energy supplies. We believe this is best done in a climate of reduced government regulation, fewer controls, and lower taxes. The past has shown that government intervention creates rigidities that prevent or discourage market forces from adjusting to change, leaving no room for appropriate economic adjustments or technological breakthroughs.

Nonetheless, government does have an important role to play in energy policy. We recognize that protecting the environment and maintaining health and safety standards are important government responsibilities. These responsibilities have not been taken lightly. Together, government and industry have worked hard to maintain the environmental integrity of our coastal areas during OCS development. The excellent environmental record of exploration and production companies operating on the OCS resulting from these efforts proves that we can both develop our OCS energy resources and protect the environment.

As a result of Reagan Administration policies, America is much more energy secure today than four and a half years ago. The gas lines and shortages have disappeared. Production is up and our energy efficiency is vastly improved. In the past four years, energy efficiency increased 13 percent -- the greatest improvement in any four-year period in our history. Yet economic output has continued to expand, despite the per capita reduction of our energy usage. In fact, the amount of energy required to produce a constant dollar of gross national product has declined by more than 20 percent since 1973.

While our progress has been impressive, there is still much to be achieved. We must not succumb to complacency. We must never again allow ourselves to become as vulnerable as we were in the 1970s. We must maintain our momentum toward the goal of energy strength by continuing to develop domestic energy resources. Only by removing impediments to the production and use of domestic energy resources can we ensure that America's energy future will continue to move forward toward the strength and security we have worked so hard to achieve.

IMPORTANCE OF OCS PRODUCTION

Timely development of oil and gas resources on federally managed areas of the Outer Continental Shelf (OCS) is essential to realize the objectives of energy stability, security, and strength. OCS production has been an important source of our energy supplies in recent years, and has the potential to contribute substantially to America's future energy needs. In light of recent forecasts indicating increased import levels of crude oil and refined products in the 1990s, we need to develop the OCS resources to both reduce dependence on foreign imports and to increase our energy security.

The attached tables (Tables 1 and 2) illustrate the contribution made by OCS production since 1973. In 1984, State and Federal offshore production provided more than 14 percent of all domestic crude oil and condensate production, averaging about 1.27 million barrels of oil a day (469 million barrels a year). In the same year, offshore production provided more than 28 percent of all domestic natural gas production, averaging about 14.2 billion cubic feet a day (5.18 trillion cubic feet a year).

Table 1

Oil Production From State and Federal Offshore Leases
(Millions of Barrels)

Year	Offshore Production	Percent of Total Production
1973	589.7	17.5
1974	543.6	16.9
1975	497.3	16.3
1976	462.5	15.5
1977	429.1	14.4
1978	414.7	13.0
1979	389.4	12.5
1980	378.5	12.0
1981	377.5	12.1
1982	405.3	12.8
1983	436.5	13.8
1984	469.5	14.4

Source: U.S. Department of Energy and the Department of the Interior.

Table 2
Natural Gas Production From State and Federal Offshore Leases
(Trillion Cubic Feet)

Year	Offshore Production	Percent of Total Production
1973	4.06	17.9
1974	4.33	20.0
1975	4.25	21.1
1976	4.40	22.1
1977	4.71	23.5
1978	5.11	25.6
1979	5.60	27.4
1980	5.65	28.0
1981	5.69	28.5
1982	5.47	29.5
1983	4.74	28.2
1984	5.18	28.6

Source: U.S. Department of Energy and the Department of the Interior.

The only Federal offshore areas that are currently productive are in the Gulf of Mexico and in the Pacific Ocean off Southern California. These regions have combined proven reserves of 3.5 billion barrels of oil and 38.5 trillion cubic feet of natural gas. This is equal to about 12 percent of the total proved U.S. oil reserves and 19 percent of the total proved U.S. natural gas reserves.

The California section of the Pacific OCS has the potential to become a particularly important source of our future oil and gas production:

- o In 1984, more than half of all new oil field discoveries for the U.S. were found in California -- 95 percent of these discoveries were made offshore. These new fields were discovered in the Santa Maria Basin and the Santa Barbara Channel.
- o By the early 1990s, U.S. oil firms developing deposits in the Santa Maria and Santa Barbara Channel areas project production of 300,000 to 500,000 barrels of oil per day, with the potential for total production of up to 2 billion barrels of oil.
- o From 1980 to 1984, dry natural gas production offshore California has almost tripled. During the same period, total U.S. production of natural gas declined.
- o Between 1980 and 1984, proved oil reserves offshore California have more than doubled.

Estimates of undiscovered resources in the Pacific region of the OCS also indicate that this can be a very promising area. The Minerals Management Service (MMS) of the Department of the Interior recently estimated undiscovered economically recoverable oil and gas resources totalling 2.2 billion barrels of oil and 4.7 trillion cubic feet of gas for the Pacific OCS region. The American Petroleum Institute also estimated undiscovered oil resources in the Pacific OCS. According to their estimates, additional resources totalling 5 billion barrels of oil could be discovered and produced.

It is important to note, however, that these are only estimates of recoverable resources. We will not know how much oil and gas is ultimately recoverable or how quickly it can be economically produced without leasing tracts and allowing private exploration and development to continue, subject to careful review of environmental and safety concerns.

Timely development of OCS resources is particularly important in light of the long lead times that are often required to find and produce oil and gas once a tract has been leased. On average, it requires two years to obtain the appropriate permits to begin drilling once a lease has been awarded. Several more years may pass before actual delivery of oil or gas can occur. For example, frontier areas may require up to 15 years for exploration, production, and delivery. In Central and Northern California, delivery would be delayed not only by the extensive permitting process, which may take five or more years in California, but also by the necessity of developing an appropriate infrastructure to support development operations.

EFFECTS OF OCS MORATORIA

The U.S. is now in its fourth year of moratoria on offshore oil and gas exploration. We are very concerned that the Nation will soon enter into its fifth year of a ban on OCS development in certain areas.

By preventing timely production of available low-cost domestic energy resources in the OCS, moratoria on OCS development cause U.S. consumers to pay more for oil and natural gas, increase our Nation's dependence on imported oil and gas, reduce our energy security, and lower our economic growth. OCS moratoria do not serve the long-term interests of the American public, nor do they strike an appropriate balance between timely development of public resources and environmental protection.

The current moratoria on OCS leasing reduce both current and future production of domestic oil and gas resources. Because less domestic oil and gas is available to meet domestic demand, demand for oil and gas from foreign producers increases. This increased demand for foreign oil in turn creates pressures for increases in the world oil price. It also encourages increased domestic consumption of insecure energy supplies.

Because an OCS moratorium shifts energy production from domestic companies to foreign companies, it also reduces domestic economic growth. Offshore oil and gas development stimulates regional economies through the creation of jobs, the expansion of local and regional tax bases, and the demand for goods and services required by OCS workers and equipment.

These effects extend beyond the region where development is taking place, since oil and gas drilling and production requires a broad variety of support to provide equipment and other services to the companies developing a lease.

THE PRELIMINARY CALIFORNIA LEASING AGREEMENT

Recently the Secretary of the Interior and a delegation of California representatives reached a preliminary agreement to limit OCS development to only 150 of 6,460 possible tracts offshore California--about 2 percent of the total federal OCS tracts in the area. The proposed agreement would allow leases to be granted to 22 tracts outside the Santa Monica Bay area adjacent to the newly discovered Southern California oilfields. About three-fourths of the tracts to be offered for lease would be in Northern California.

If this agreement becomes final, over 36 million acres of lands under Federal waters would be locked up for at least the next 15 years -- until the year 2000. Only then would we, as a nation, be able to reconsider whether these resources should be developed. The preliminary agreement would finalize judgements concerning our energy needs and our ability to safeguard the environment before we have the information required to make these judgements. By lifting the moratoria on OCS development, we will not be approving or encouraging wholesale development of the OCS. Instead, we will be regaining the ability to make judgements concerning where and when additional OCS development should occur and with what precautions necessary to safeguard the environment.

ENVIRONMENTAL ISSUES

Let me emphasize that I appreciate the environmental qualities of the California Coast as well as anyone. I was raised near the adjoining beaches and have used these areas for recreation for many years. Certainly, steps must be taken to assure environmental protection; however, we have learned that offshore drilling can be conducted with full environmental safety.

The environmental record of exploration and production companies operating in the OCS is excellent. In the thirty year history of OCS development, the Santa Barbara incident in 1969 is the only oilspill that resulted in significant amounts of oil reaching shore. This problem has been addressed through changes in drilling technology to control blowouts and improved environmental regulations. As a result, since 1970, over seven billion barrels of oil have been produced from OCS operations, but only about 850 barrels have been lost from blowouts. In 1984, less than 10 barrels of oil were spilled in all California OCS operations and all but half a barrel were recovered. It is clear from this record that we are now able to develop the OCS in an environmentally safe manner.

Oil not produced from the OCS will be replaced by oil from other sources. Production from these sources may pose more of an environmental risk than production from the OCS. Offshore production has historically been a very minor source of marine pollution. In fact, a 1981 National Academy of Sciences (NAS) study on safety and offshore oil shows that worldwide offshore oil and gas production contributes five percent of the total oil pollution in the world's oceans. In contrast, pollution from U.S. offshore oil and gas production accounts for only five one-hundredths of one percent of the total oil pollution in the world's oceans. Total oil lost from all U.S. offshore production operations, pipeline breaks, and fuel transfers during the 70's averaged less than 5,700 barrels per year, according to the NAS study.

This compares to estimated annual worldwide figures of:

- o 11,700,000 barrels from river run-off;
- o 7,500,000 barrels from ocean dumping of industrial and municipal wastes;
- o 7,800,000 barrels from routine tanker operations, such as tanker washings and loading operations;
- o 2,900,000 barrels from tanker accidents;
- o 2,200,000 barrels from atmospheric input; and
- o 1,800,000 barrels from natural seeps and sediment erosion.

Current requirements for environmental analyses and other safeguards provide a strong measure of general protection to OCS areas. In areas where there are unique environmental risks, private industry and other interested parties may address these potential risks through a process of consultation between all parties to decide what additional safeguards are appropriate. There is no reason to believe that we cannot have both a clean environment and the benefits of the potentially enormous hydrocarbon resources which are off the California coast.

THE NEED FOR CONSENSUS

The decisions we make as a nation about the manner and rate at which we allow our OCS resources to be explored and developed will have important ramifications for our Nation's security, economic growth, and environmental quality. For this reason, it is essential that the process we use to make these public decisions allow for a proper balance of security, economic, and environmental considerations. In fact, Interior's own five-year planning process allows for such a balance to be achieved.

The Department of Energy believes that the planning mechanisms of the Outer Continental Shelf Lands Act Amendments of 1978 (OCSLAA) and the five-year oil and gas program which is based on that legislation, are the appropriate basis for a national consensus. The OCSLAA establishes a framework within which the Department of the Interior can fairly analyze disputes over offshore acreage and carefully balance decisions regarding leasing.

The OCSLAA mandates that the Secretary of the Interior must consider whether all regions share equitably in the benefits and risks of offshore oil and gas development under a proposed leasing plan. Any agreement which circumvents the carefully crafted planning procedures of the OCSLAA and its balancing requirements is not truly a national consensus. The Department of Energy strongly believes that a careful balancing of security, economic, and environmental considerations under the current planning process would lead to additional areas of the OCS being opened to exploration and development.

CONCLUSIONS

The decision on how to proceed in the development of OCS lands is extremely important for America's energy future. We believe the preferable way to proceed is through the balanced planning process of the OCSLAA. The decision you make whether to continue current moratoria on OCS development needs to balance all of the important considerations outlined in my testimony today. I commend Secretary Hodel for his efforts to achieve consensus on these issues. I believe that these are issues that require carefully reasoned decisions. We can best accomplish this by lifting current moratoria and pursuing a reasoned course of OCS development through the planning mechanisms currently in place.

OFFICIAL COMMITTEE FILE

State of California
GOVERNOR'S OFFICE
SACRAMENTO 95814

GEORGE DEUKMEJIAN
GOVERNOR

TELEPHONE
(916) 445-2841

September 23, 1985

Honorable James A. McClure
Chairman, Committee on
Energy and Natural Resources
United States Senate
Washington, D.C. 20510

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
[illegible]
SEP 25 1985
[illegible]

Dear Mr. Chairman:

I am writing to inform you of my views on proposed legislation concerning the sharing of funds prescribed by section 8(g) of the Outer Continental Shelf (OCS) Lands Act. As you are aware, in approving the budget Congress directed that legislation be enacted to provide for disposition of OCS revenues currently being held in a separate escrow account in the Treasury. Congress' direction was to give affected states a 27 percent share of bonuses, rents and accrued interest in this account.

As I wrote to you in July, I feel strongly that legislation concerning the division of future 8(g) revenues should include sharing of royalties paid to the federal government. At present, few of the 8(g) tracts covered by the escrow account are producing royalties. However, this source of 8(g) revenues will become increasingly important over the next twenty years and beyond if energy development continues at its present pace offshore California. This state and the affected local governments urgently need this source of 8(g) revenues if we are to be able to accommodate this development.

In addition, I do not see the sharing of royalties as simply a drainage issue. Limiting royalties to payment for drainage from beneath state tidelands is neither fair nor equitable. This approach merely reimburses the state for resources which are already ours.

I would appreciate your help in ensuring that a provision for sharing royalties is incorporated into the legislation regarding future 8(g) revenue distributions. Should you have any specific questions, please contact my Secretary of Environmental Affairs and OCS Policy Coordinator, Jananne Sharpless at (916) 322-5846.

Most cordially,

George Deukmejian

George Deukmejian

eh

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

OFFICIAL COMMITTEE FILE
PLEASE RETURN

September 24, 1985

The Honorable James A. McClure
Chairman
Senate Committee on Energy
and Natural Resources
358 Dirksen Senate Office Bldg.
Washington, D.C. 20510

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
SEP 25 1985

Dear Mr. Chairman:

Thank you for the opportunity to present for the record the views of the State of Alaska regarding Section 8(g) of the Outer Continental Shelf (OCS) Lands Act.

My office has been actively involved in efforts to settle the 8(g) issue for some time. These efforts have included extensive negotiations with the Interior Department, the filing of litigation, and, most recently, active legislative advocacy in coordination with other 8(g) States and our Congressional delegation. In a time of rapidly decreasing State revenues and other considerations, the attainment of a fair and equitable distribution of 8(g) revenues is one of the highest priorities of my Administration. We believe that it is in the interests of both the United States and the States to satisfactorily resolve the 8(g) matter in order to avoid protracted litigation and to release needed revenues to both federal and State coffers.

Enclosed, for the record, are my statements and testimony before the House Interior Subcommittee on Energy and the Environment, and the House Merchant Marine Subcommittee on the Panama Canal/Outer Continental Shelf. Also enclosed are critiques of the Interior Department's position and proposed legislation on section 8(g), and a copy of the complaint filed by the State of Alaska against the United States. These documents fully set out Alaska's position on the section 8(g) controversy.

While there are other issues involved in the section 8(g) dispute that are very important to the States, the controversy has generally centered on two issues: deficits in the escrow account and the percentage of 8(g) revenues that should be distributed to the States. The legislation before the Energy Committee deals with the latter issue by providing for a distribution of 27 percent of 8(g) revenues to the States. It also provides for division among the States of approximately 27 percent of the existing escrow account. The deficiencies in the account are dealt with by temporarily recouping an additional 10 percent of the federal share of future 8(g) revenues and by distributing it among the States.

I am concerned that acceptance of this legislation, as well as that passed by the House Interior Committee, be recognized as a real compromise by the States. However, without passage of all provisions of the Act, including recoupment provisions, the legislation cannot be considered a fair and equitable division of revenues, or even a fair settlement of the issue.

The issues that this Congress is faced with in distributing the 8(g) escrow account result in large part from actions taken by the Interior Department. We have consistently pointed out that the deficiencies in the escrow account are due to unilateral determinations made by the Interior Department in contravention of a federal district court decision. To compound the problem, these determinations or practices were not consistently applied to the lease sales of the various States. The result is that for some States a much larger percentage of revenues actually received have been placed in escrow than for other States. Simple distribution of the existing escrow account without provision for recoupment would unfairly penalize all States involved. But some, including Alaska, would be more adversely impacted than others.

It is for these reasons that the State of Alaska supports the section 8(g) legislation recently introduced by you and Senator Murkowski. We are advised that this legislation clearly satisfies the directives contained in the budget resolution. Further, while not perfect from the point of view of the Coastal States, I believe that the proposed bill, which is similar to one already reported by the House Interior Committee, strikes a reasonable balance between a number of complex and important considerations.

I do feel, however, that the bill which you have introduced should be amended to increase the initial allocation of funds to Alaska by $10 million. Such an increase is necessary to bring Alaska's share into line with escrow figures compiled by the Interior Department. With adoption of the Texas/Louisiana amendment, this change would mean that each Section 8(g) State would receive the higher of the Interior Department or CBO per-State allocations. It should also be noted that the increase which we are recommending would not abrogate the Budget Committee's instructions.

In conclusion, the State believes that the best legislative solution to the section 8(g) controversy is one which wisely serves the objectives of the 1978 Amendments. America in 1985 still needs an effective and vigorous program of OCS oil and gas development. We believe that the chronology of 8(g) is a history of federal-state confrontation in which the Department of the Interior has neglected the Congressional mandate for cooperation, as enunciated in two federal court decisions. In our opinion, this Congress should end that unhappy impasse by affirming the rights of the States to share bonus, rent, and royalty income on a fair and equitable basis.

Thank you for your consideration of these views.

Sincerely,

Bill Sheffield

Bill Sheffield
Governor

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

July 29, 1985

The Honorable Morris K. Udall
Chairman
Subcommittee on Energy and
  the Environment
1327 Longworth House Office Bldg.
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for the opportunity to present for the record the views of the State of Alaska regarding Section 8(g) of the Outer Continental Shelf (OCS) Lands Act.

Section 8(g) requires the "fair and equitable" division between each state and the United States of revenues attributable to oil and gas leases in the three mile zone adjacent to that state's seaward boundary. The statute further requires that the 8(g) revenues be held in escrow pending state - federal agreement or district court determination on the fair and equitable division of revenues.

Large amounts of revenues have accumulated in escrow since Section 8(g) was enacted in 1978. This has occurred because fundamental differences between the affected states and the Secretary of the Interior have made agreement on the division of 8(g) revenues impossible. Recently, former Secretary Clark proposed that the United States should take 83.33% of all amounts in escrow, and 100% of each of the following: 8(g) revenues which were never placed in escrow, all future 8(g) royalties (other than royalties attributable to drainage of the state's oil and gas), and all other future revenues, such as tax revenues. All seven affected states have rejected that offer. Six states, including Alaska, have proposed a settlement which would divide all 8(g) revenues (not just those in escrow), including bonuses, rentals, royalties, and tax revenues. The states proposed that 37.5% of all revenues be distributed to the affected states, and 62.5% to the United States. In May, Secretary Hodel rejected this offer and suggested that preliminary staff discussions on subsidiary issues be held preparatory to later meetings on the principal issues raised by the governors' counter-offer.

The House budget resolution (H.C.R.152) recommends, directs, and assumes passage of substantive legislation to distribute the revenues being held in the Section 8(g) OCS escrow account, with 73% allocated to the federal government and 27% allocated for distribution to the affected states, in order to provide $4 billion in additional federal revenues for FY 86. Although the Senate budget resolution contains no comparable provision, a consensus seems to have emerged among House and Senate Budget Committee conferees and Administration officials to settle the Section 8(g) issues along the lines suggested in the House Budget Resolution.

From Alaska's perspective, there are two major problems with the House proposal. First, the Interior Department has failed to put the proper amount of money into escrow. Second, the fair and equitable share for Alaska and other 8(g) states is at least 37.5% of the total amount that should properly have been placed in escrow.

(1) The Interior Department has failed to put the proper amount of money into escrow. The amount held in escrow is significantly below what should be there. Because of this fact, the House Budget Resolution's exclusive focus upon the percentage allocation of the revenues is inappropriate.

When the 8(g) escrow account was first established, the Interior Department properly placed into escrow bonuses from all tracts which included any acreage within the 8(g) zone. Since that time, however, Interior has adopted two restrictive policies which have artificially reduced the amount in escrow, to the detriment of the states.

Under the first policy, Interior prorates bonus revenues for tracts straddling the 8(g) line on a surface acreage basis, even though the potential production may all originate from the portion of the tract within the 8(g) zone. Under the second policy, Interior has put into escrow only bonuses from lease tracts which it has unilaterally determined have a "capability" of containing oil and gas. In accordance with this approach, Interior does not escrow any bonuses from many tracts within the 8(g) zone. That is, for many tracts within the 8(g) zone, Interior has put no bonus money into escrow, based upon its assessment that those tracts have no hydrocarbon potential. Interior reaches this conclusion in spite of the fact that oil companies have bid substantial sums premised on their assessment that these same tracts have oil and gas potential.

In August, 1983, U.S. District Court Judge Robert Parker ruled that the escrow provision of section 8(g) requires Interior to place all 8(g) revenues into the escrow account. Interior's failure to escrow substantial 8(g) revenues under its proration theory and unilateral geological assessment violates Judge Parker's reasoning and the plain meaning of the statute.

As of March 31, 1985, the shortfall in the escrow account for all states was more than 1.3 billion dollars, exclusive of interest. The total 8(g) revenues in escrow for Alaska should be 615 million dollars, whereas only 163 million dollars are currently in escrow for the state. The fact that Interior has only one-fourth the amount in escrow which should be there for Alaska, demonstrates the problems of simple percentage allocation. It is essential that serious attention be afforded to the issue of what revenues must be divided.

(2) The fair and equitable share for Alaska should be at least 37.5%. Alaska believes that any legislative settlement of the Section 8(g) issue should provide the states with a percentage of the funds which should have been placed into the escrow, not just the amount that is currently there. Moreover, we believe that, absent special circumstances, the fair and equitable division of revenues would be an even division between the United States and Alaska. Accordingly, Alaska's participation in the 37.5% offer is a significant compromise by the State.

Alaska's own leasing program, which has resulted in the current production of over 1.7 million barrels per day from State lands, has done much to enhance the value of federal OCS acreage. Additionally, the impacts of OCS development, both in human and environmental terms, fall heavily on Alaska's coastal residents. For these and other reasons, the 27% figure proposed by the House Budget Committee is unacceptably low.

If Congress is going to resolve the 8(g) dispute through legislation, the problems discussed above must be addressed. There are also other considerations that should be dealt with in substantive legislation. Among them is the need for adequate sharing of information with the states by the Interior Department. Alaska will also want to clarify its entitlement to 8(g) funds in the event that the United States is successful in the Beaufort Sea boundary litigation. We have discussed these issues with Congressional staff in the past. We would hope to continue to work with you and your staff in the future to reach a successful resolution of these issues.

Thank you for your consideration of our views.

Sincerely,

Bill Sheffield

Bill Sheffield
Governor

cc: The Honorable Ted Stevens
The Honorable Frank Murkowski
The Honorable Don Young

For the record, I'm the Governor of Alaska, Bill Sheffield. Before I begin my testimony, I'd like to welcome the members of this committee to Alaska, and I wish you an enjoyable stay in our great state.

As the State's chief executive, I would like to address a couple of major OCS policy issues today. I'll concentrate on these two areas:

* First, the State's request to delay the proposed North Aleutian OCS Sale until at least 1994;

* And Second, our efforts to secure Alaska's fair share of federal OCS revenues.

Alaskans have strong feelings on these issues. Perhaps the best illustration of that came in early June, in the Bristol Bay villages of King Salmon and Naknek. I brought Secretary of the Interior Don Hodel to that region so he could see and hear the people who depend - every day - on the resources of Bristol Bay.

The plain talk and deep sincerity of those people had a profound effect on Secretary Hodel. When he left those villages, he told me he left with a troubled mind.

The people told him why OCS Sale 92 - The North Aleutian Basin Sale - should be delayed at least until 1994. The State agrees with those arguments, and today I would like to submit to you, for the record, the State's position paper on the North Aleutian Sale as proposed by the Department of the Interior. But let me take a few moments to summarize the highlights of the State's position, and clarify why I'm pushing so hard for the delay of that sale.

Bristol Bay is one of the richest fishing grounds not just in Alaska, not just in North America, but in the world. It also contains one of the greatest concentrations of birds, fish, and marine mammals on the North American Continent.

Hundreds of millions of salmon migrate through the sale area each year. In addition, studies indicate that, in peak years, the sale area and adjacent waters may be the major feeding and rearing area for as many as a billion outmigrating juvenile salmon from Western Alaska, Bristol Bay, and the Alaska Peninsula streams.

That salmon fishery is worth more than a quarter of a billion dollars a year, and provides employment for 10,000 people. Here in Alaska, the fishing industry is the largest private employer, and the Bristol Bay fisheries account for roughly a quarter of the industry's jobs.

The Bristol Bay area is important not only for its migrating salmon, but also for the spawning herring, king crab, and groundfish populations the sale area supports.

In 1982 more than 44 million pounds of herring sac-roe were harvested in Bristol Bay, with a value of more than $6.3 million.

Nearly 70 percent of all red king crab harvested in the eastern Bering Sea comes from the proposed sale area. And perhaps even more important, about half of the domestic and joint venture catch of such bottomfish species as yellowfin sole, pollock, and halibut comes from this area.

I'll tell you why this is so important. One of the goals of my Administration is to eventually eliminate foreign fishing within American waters. We're still in the early stages of developing our bottomfish industry, but the "Americanization" of that fishery is a top priority.

In fact, the commercial fishing seasons provide the single largest infusion of cash to the people of the region. For many families, the money they make during the commercial season accounts for almost their entire annual cash income.

Let me also emphasize that in Bristol Bay, many people still live off the land. Their subsistence harvest of fish, marine mammals, birds, eggs, caribou, and moose can't be replaced by a trip to a supermarket, especially when the supermarket is hundreds of miles away.

Any offshore oil and gas exploration and development poses risks to fish and wildlife, especially in the marine and estuarine areas close to shore. Those impacts include oil contamination from spills, pollution from drilling muds, habitat alteration from construction activities, and noise and disturbance. We know that even a small amount of oil can have a significant impact.

Industry has come a long way in improving oil spill containment and cleanup technology. But there's still a considerable difference of opinion over whether existing technology or sufficient equipment is available to contain and clean up a major offshore spill in the Bering Sea.

The stakes, and the risks, are high in Bristol Bay. Given the fact that our present data indicates relatively low potential for oil and gas, we believe Bristol Bay should be the last area of Alaska's outer continental shelf opened to leasing.

And, even before we agree to that, we need some major questions answered. As part of our response to the Sale 92 draft environmental impact statement, the State identified 38 important information needs. Fish and Game Commissioner Don Collinsworth will address that information gap in greater detail at your hearing Wednesday in Kodiak.

He'll tell you that yes, there is some information available on some of the topics that concern us. But the available information on many fish and wildlife species is simply not sufficient to reasonably assess the impacts of potential oil and gas development.

Our insistence on a delay for Sale 92 is a stand not taken casually.

Our request to delay Sale 92 is consistent with the State's own oil and gas leasing plan -- and is consistent with the Bristol Bay Cooperative Management Plan, which underwent hundreds of hours of public scrutiny.

My Administration is a solid and active supporter of oil and gas development. During my tenure in office, we've either held or cooperated in 15 competitive lease sales -- ten by the State, and five by the federal government.

We've approved a dozen exploration plans in the Navarin Basin, Norton Sound and St. George federal lease sale areas. And, we're working well with the federal government on several upcoming sales.

We understand that the basins off Alaska's shore can play a major role in meeting our nation's need for domestic oil and gas supplies. And, we're prepared to help meet that national need.

We believe the State and the federal government should be working in partnership in developing our OCS resources.

Which brings me to the matter of recognizing that partnership by sharing the benefits of OCS development.

Section 8(g) of the OCS lands act says the State should get "fair and equitable" share of the money made on federal OCS leases in those three miles just adjacent to the State's three mile limit.

Furthermore, the section says that 8(g) revenues should be set aside, in escrow, until the federal and State governments, or the courts, agree on what constitutes a "fair and equitable" split.

There's a considerable amount of money in that escrow account today, because of fundamental differences between the affected states and the Secretary of the Interior, and how it's divided up is of great concern to Alaska and the six other affected coastal states.

Recently, former Secretary Clark proposed that the United States take 83 1/3 percent of the amount in escrow, and 100 percent of other revenues which we believe should be a part of the escrow account The individual states would get the remaining.

All seven affected coastal states rejected that offer as far too low. Six of us proposed what we consider to be a fair settlement, that we receive at least 37 1/2 percent of all 8(g) revenues, not just those in escrow...and including bonuses, rentals, royalties, and tax revenues. In May, Secretary Hodel rejected this offer.

Since then, Congress has identified that money in the escrow account as a source of additional funds to further reduce the federal deficit this year. The budget resolution passed by Congress last week assumes passage of substantive legislation to distribute those monies, with the affected states getting 27 percent and the remainder going to the federal government. That split would provide $4 billion in additional federal revenue for this next fiscal year.

While we commend the spirit of compromise exhibited in that resolution, Alaska still has two major problems with it. First, the Interior Department has failed to put the proper amount of money into escrow. Second, the fair and equitable share for Alaska and other 8(g) states is at least 37 1/2 percent of the total amount that should properly have been placed in escrow.

As to our first point, the amount held in escrow is significantly below what should be there. Because of this fact, the budget resolution's exclusive focus upon a percentage allocation of the amount currently in escrow is inappropriate.

When the 8(g) escrow account was first established, the Interior Department properly placed into escrow bonuses from all tracts which included any acreage within the 8(g) zone. Since that time, however, the Interior Department has adopted restrictive policies which have artificially reduced the amount in escrow, to the detriment of the states.

In contrast to Interior Department practices, a Texas U.S. District Court has ruled that the Interior Department had to place all 8(g) revenues into the escrow account. Interior's failure to do so violates the reasoning behind that court ruling.

As of the end of this March, the shortfall in the escrow account for all states was more than $1.3 billion, not counting interest. We believe the total revenues that should be held in escrow for Alaska should be $615 million, whereas only $163 million are currently in that account.

The fact that the Interior Department has only one fourth the amount in escrow which should be there for Alaska demonstrates the problems of a simple percentage allocation as provided for in the budget resolution. It's essential that serious attention be given the issue of what revenues must be divided, and that the states receive a percentage of the funds which should have been placed into the escrow account, not just the amount that is currently there.

Our second point is that the fair and equitable share for Alaska should be at least 37 1/2 percent. Actually, we believe that our fair share is an even division between the United States and Alaska, so our decision to push for 37 1/2 percent was significant compromise by the State.

Alaska's own leasing program, which has put into production more that 1.7 million barrels of oil per day from State lands, has done much to increase the value of federal OCS lands. Additionally, the impacts of OCS development, both in human and environmental terms, fall heavily on Alaska's coastal residents. For these and other reasons, the 27 percent figure is unacceptably low.

If there is to be a legislative resolution of the 8(g) dispute, the problems I've just discussed must be addressed. We also must deal with several other issues, including the need for adequate sharing of information with the states by the Interior Department.

Alaska will also want to make clear its entitlement to 8(g) funds if the United States is successful in the Beaufort Sea Boundary lawsuit.

We've discussed a lot of these issues with congressional staff and members in the past. I give you my pledge that we will continue to work with you and your staff in the future to reach a successful resolution of these issues.

I appreciate the opportunity to testify today, and I'd be happy to answer any questions you may have, as will two of my staff members, Jim Eason, Deputy Director of the Division of Oil and Gas, and Assistant Attorney General Mark Worcester of the Department of Law.

Following your questions, Bob Grogan of the Division of Governmental Coordination will provide further State testimony on additional topics being considered by your committee.

STATE ANALYSIS OF INTERIOR DEPARTMENT'S DRAFT BILL ON 8(g)

The purpose of this analysis is to present reaction of the states of Alaska and Texas to the DOI draft bill on § 8(g). Before addressing specific paragraphs of the draft, it is important to focus on two preeminently important issues which run throughout the proposed bill--the issues of surface acreage proration which is principally responsible for the deficit in the escrow account, and royalty division.

Prorationing and Royalties

Throughout the DOI bill, the agency proposed that revenues be computed on a per acre basis and that the total then be prorated at the outset - prior to division - based on the number of acres within the 8(g) zone. This concept of proration has been the source of enormous confusion and dispute between DOI and the states. The problem - from DOI's perspective - arises because a tract may lie partially within and partially beyond the 8(g) zone. The states say that if a problem exists, DOI created it because DOI controls the size and shape of its offshore tracts. In fact, internal DOI memoranda show that the question of whether or not to draw tracts to conform to the 8(g) zone was debated at length at the Assistant Secretary level shortly after 8(g) was enacted.

The agency consciously chose to permit the overlap to occur. It is neither necessary nor appropriate to now go through the tedious and controversial proration process. The best course, and the simplest, is to divide the current escrow account without considering prorationing. When both Judge Parker and Judge Mentz considered this approach in the Texas and Louisiana 8(g) litigation, they rejected DOI's proposal and concluded that revenues should not be prorated just because DOI chose to let the tracts overlap the 8(g) zone. The states urge that the lead of the two district courts be followed here. As a practical matter, this would no doubt lead DOI to draw the tracts so as to avoid that problem in the future.

When DOI proposes to give the States a royalty share to compensate them for drainage, DOI offers nothing of significance. First, the states did not need 8(g) to protect them from drainage. Traditional unitization agreements had been used by DOI and Louisiana for many years before 8(g) was adopted. Second, in any event, compensating states for drainage of their own oil and gas is simply paying them for what is theirs to begin with.

In an early opinion, issued shortly after the 8(g) program began, the Department's solicitor advised the agency leadership that 8(g) clearly made all lease revenues available for division and that specifically included royalties. A real share of federal 8(g) royalty income is absolutely indispensable to the coastal states. Royalty income is the only revenue being divided here which is continuing in nature. Consequently, it is the only income which is available, over time, to assist the coastal states in dealing with ongoing production and development activity on the federal OCS. That activity hasn't even begun on a tract when bonuses are paid. The apparent demise of the other financial programs designed to help states deal with the OCS activity only serves to enhance the importance of treating the coastal states "fairly and equitably" on the royalty issue.

Comment Upon Specific Provisions

The comments which follow are referenced to specific sections and paragraphs of the DOI draft.

1. § 1(a). DOI has already conceded that the numbers appearing in this paragraph are wrong. None of the states is going to be willing to accept any specific dollar figure without the right to audit the 8(g) accounting. Moreover, these numbers reflect DOI's practice of prorating bonuses and rents. This practice, unilaterally adopted by DOI, results in a significant shortfall in the money that should be in the escrow account and which should be subject to "a fair and equitable" division. Royalties are excluded and must be included. Further, DOI has already effectively abandoned the requirement to funnel 50% of the monies to local governments and now simply seeks recognition in the committee reports that states should be mindful of coastal communities.

2. § 1(b)(c)(d). These sections would require the states to relinquish any existing 8(g) litigation claims within sixty days after enactment of the bill in order to receive 8(g) funds from the distribution of the current escrow account. This type of provision is punitive and unfair. The 1978 Amendments required Interior to deposit all bonuses, royalties, and other revenues from tracts that included 8(g) leases. Interior has not deposited certain bonus and rental revenues into the escrow account. The states' right to litigate should be preserved unless the legislation provides for a comprehensive and fair settlement involving distribution of all revenues that should have been deposited into the escrow account. Moreover, two of the three states now in litigation cannot legally unilacerally dismiss that pending litigation.

3. § 1(e). This section permits distribution of 8(g) bonuses and rents to

Alaska upon resolution of section 7 boundary disputes concerning sales 71 and 87. It is unacceptable for three reasons. There should be no prorationing of revenues before distribution. The state should receive 37½ percent of the revenues rather than the 27 percent provided for. Most important, the section does not provide for distribution of 8(g) funds after resolution of the Beaufort Sea section 7 dispute. Alaska is entitled to 8(g) revenues in the event the federal government is successful in this boundary litigation.

4. § (g)(1)(A), (B). Prorationing is inappropriate. Additionally, many of the affected states believe that an equitable division is 50% of all revenues, just as onshore states receive under the Mineral Leasing Act. The counteroffer by the Governors at 37 ½% was a concession reached only after intense and heated debate. A figure below that has been approved by any state except Louisiana.

5. (g)(1)(C), (D), (E), (F), (G). The concepts contained in these paragraphs are acceptable except as to prorationing and the percentage figures used.

6. (g)(2)(A), (B). The states strongly believe that a "fair and equitable" resolution requires a share of federal royalties beyond compensation for drainage.

7. (g)(2)(C). Giving DOI the unrestrained authority to define when and how

drainage will be recognized and compensated, which this paragraph does, is completely unreasonable. The OCSLA currently provides DOI adequate authority for federal lands. When issues arise between adjacent landowners, as here, they are better addressed through traditional methods like unitization agreements. Arbitration is frequently used in those agreements, but the venue and review standards set out in this paragraph deny both the states and DOI any effective judicial review.

8. (g)(2)(D). This paragraph must be changed to reflect that the division of royalties is to be on a percentage basis in addition to compensation for drainage.

9. §8(g)(2)(E)(F). Credit of royalties not disposed of under (g)(2)(D) to the miscellaneous receipts fund is acceptable provided necessary changes described above are made in (D). Treatment of revenues from sales of royalties taken in kind as royalties is acceptable.

10. § 8(g)(3). This section is unacceptable for several reasons. It appears to allow sharing of geologic information only from areas within the 8(g) zone. Interior has acknowledged that information derived from outside of the zone, but related to it, is necessary to an understanding of the 8(g) zone. The states must have the opportunity to share in that information as well. The suggestion that any revenues should be withheld in connection with sharing information is also unacceptable. Further, the secretary should be

specifically authorized to sign a reciprocal confidentiality agreement with the states containing all of the safeguards required from the states under § 26 of the 1978 Amendments (43 USC § 1356).

11. (g)(4). DOI asks the Congress to effectively deny the states any voice in management of OCS leasing programs off their coasts. This paragraph flies in the face of the spirit of the 1978 Amendments which sought to create a cooperative and consultative process. DOI has all of the authority necessary to manage the OCS. This paragraph is a retreat from the consultation and cooperation called for under the 1978 Amendments.

12. (g)(5). Current law contains an anti-injunction provision. Therefore, this provision is unnecessary.

13. (g)(6). DOI has effectively abandoned this paragraph.

CONCLUSION

Alaska and Texas believe that the DOI draft legislation represents a significant departure from existing precedent and statutory law. Further, many of the proposed solutions contained therein would abrogate traditional federal-state relationships or fly in the face of the prior Congressional directive that all 8(g) revenues be shared on a "fair and equitable" basis. For these reasons we respectfully suggest that the DOI bill cannot be accepted either as a mark-up vehicle or as a balanced resolution of the current dispute.

BILL SHEFFIELD
GOVERNOR

State of Alaska
OFFICE OF THE GOVERNOR
WASHINGTON, D.C.

August 28, 1985

TRANSMITTAL MEMORANDUM

TO: THE HONORABLE TED STEVENS, U.S. Senate
THE HONORABLE FRANK MURKOWSKI, U.S. Senate
THE HONORABLE DON YOUNG, U.S. Representative

FROM: JWK JOHN W. KATZ, Director of State/Federal Relations and Special Counsel to the Governor
MF MARTHA FOX, Special Assistant Attorney General

SUBJECT: SECTION 8(g) ISSUE PAPER

Attached is the response of the State of Alaska to particular issues raised by the Interior Department, concerning proposed 8(g) legislation.

Please contact us if you have any questions.

Attachment

cc: Rick Agnew
Greg Chapados
Tom Roberts

August 28, 1985

RESPONSE TO POINTS RAISED BY INTERIOR DEPARTMENT ON PROPOSED 8(g) LEGISLATION

The Interior Department has distributed to the State of Alaska an outline entitled Talking Points, 8(g) Legislative Proposal, Department of Interior recommendations regarding 8(g) legislation. It is our understanding that this outline has also been circulated to several committee staffers in Congress. The following is a statement of the points raised by Interior and the State of Alaska's response to each. We are also attaching a copy of our proposed 8(g) legislation.

1. Legislation should be specific in resolving all claims to existing Section 8(g) funds. Alaska is amenable to a legislative settlement of all existing claims with one important proviso. The legislation should recognize current deficiencies in the escrow account and should provide for payment to the states of amounts based on the 8(g) funds that should have been placed in escrow rather than the amounts actually placed into escrow by Interior. Attached to this document, along with our proposed legislation, is a chart showing the amounts received for 8(g) leases, the amounts placed in escrow by Interior, and the amounts that we believe should have been placed in escrow for affected states. In connection with this issue, it should be noted that there are serious legal issues concerning the ability of the Congress to mandate a retroactive resolution of the escrow account issue that is accomplished without the express consent of each affected state, or is in conflict with a standing court order. [See U.S. District Court decision in *Texas v. Hodel*, 580 F. Supp. 1197 (1984), which is currently on appeal to the Fifth Circuit Court of Appeals.]

2. 73/27 percent Federal/State split of current bonuses, rents and accrued interest. Alaska has consistently taken the position that, while we believe that a fair and equitable settlement would be a 50/50 split between the United States and the State, we are willing to compromise and accept 37½ percent of all bonuses, rents and royalties from 8(g) leases in Alaska. We believe that this is a reasonable position, particularly when the social and environmental costs of federal OCS development will fall on the State and, primarily, its coastal residents. Furthermore, Alaska's own leasing program has done much to enhance the value of federal OCS acreage.

a. Specific dollar settlements to each State should be itemized in the legislation to preclude further disagreement and litigation. While agreement on specific

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dollar settlements for the amount currently in escrow is a reasonable goal, we would object to any attempt to preclude our litigating the issue of the amount that should properly have been deposited in escrow, if that issue is not adequately dealt with in legislation. In practical terms, we question whether it would be possible to complete calculations on specific dollar amounts within the time constraints involved. We believe that if the theory for calculating the dollar amounts is adequately set out, it should be possible to agree on distribution of the amounts currently in escrow.

b. Bonuses would be allotted proportional to the surface acreage of blocks independent of whether they contain a common reservoir. Interior's position on this point combines two concepts, which we will describe as the "proration" and "common pool or field" concepts. Interior's position represents the continued insistence upon improper "proration" and an abandonment of its improper "common pool or field" theory. Alaska appreciates and supports Interior's abandonment of the latter theory. However, the State continues to oppose the improper "proration" theory. The history of Interior's handling of the escrow accounts will help put these issues into perspective.

Proration: In the period immediately subsequent to the enactment of Section 8(g), Interior put into escrow all bonuses, rents and royalties attributable to all 8(g) tracts. Later, however, Interior unilaterally reduced its deposits of bonus money into escrow based upon its "proration" theory. That is, for each 8(g) tract, Interior allotted revenues according to the proration of the surface acreage within the 8(g) zone. For Alaska, this has had a dramatic impact on the amount in escrow. That amount should be at least $633,000,000. However, only about $163,000,000 is now in escrow for the State. Of the difference, approximately $425,000,000 is attributable to the unilateral exclusions of bonus money by Interior based upon its proration theory. The proration theory is not supported by any provision within Section 8(g), and has been expressly repudiated by the United States District Court in Texas.

Common pools or fields: In the summer of 1984, Interior instituted the policy of excluding from the escrow accounts all revenues attributable to those 8(g) tracts where Interior perceived no hydrocarbon potential. However, Interior's assessment that these 8(g) tracts had no hydrocarbon value is disproved by the very fact of the receipt of substantial bonus bids from oil companies for the right to explore these tracts. Accordingly, it is a welcome development that Interior has conceded that the escrow accounting should be adjusted to include revenues from all tracts, irrespective of Interior's estimates of oil and gas potential.

c. Revenue from blocks between two States where there is overlapping 8(g) acreage would be allocated proportional to the overlapping acreage. Alaska takes no position on this issue.

3. Legislation should be prospective as well as retrospective. Payments to States would be for 27 percent of bonuses and rentals. Alaska has no objection to a prospective settlement of the distribution of 8(g) funds, provided that the legislation contains appropriate guidelines.

a. Funds from 8(g) tracts would be prorated between acreage within and beyond 3 miles seaward of the State boundary on a proportional basis and payments to the States would be made only for acreage within 3 miles of the State boundary. As discussed previously, Alaska has consistently opposed the prorationing of 8(g) funds on the basis of surface acreage within the 8(g) zone. There is nothing in Section 8(g) which supports this approach.

b. If an 8(g) tract is within 3 miles seaward of two States, each State should receive 13.5 percent of the amount deposited for each acre within the 8(g) zone of both States. Alaska takes no position on this issue.

c. When Federal/State seaward boundaries are in dispute, the appropriate percentage of future bonuses and rents from disputed blocks plus interest would ultimately be paid to the States based on resolution of the boundary issues. Alaska agrees with this approach, provided that the money is held in escrow pending resolution of any boundary issues. Alaska has an additional concern, addressed in our proposed legislation, that relates specifically to existing Beaufort Sea boundary litigation and the State's entitlement to 8(g) funds. Under our approach, a percentage of the funds currently held in the Section 7 title account would be transferred to the Section 8(g) account if Alaska loses the current boundary dispute.

d. When the lateral offshore boundary between two States is in dispute, 27 percent of the future bonuses and rents from disputed blocks plus interest would ultimately be paid to the States based on resolution of the boundary issues. Alaska takes no position on this issue.

4. Royalties should be paid to compensate for drainage only. Alaska has consistently opposed this approach to the division of 8(g) royalties. The states already own the oil and gas originally in place beneath state lands. The states also had available various mechanisms for assuring the receipt of revenues for production of that oil and gas before Section 8(g) was enacted. Section 8(g) clearly entitles the states to share in a fair and equitable distribution of revenues from 8(g) leases attributable to the federal interests that are sold, rather than just receiving compensation for state interests that might be exploited.

Any other interpretation of Section 8(g) would ignore the substantial body of law and practice concerning drainage that was already applicable when this section was enacted.

a. The Secretary should be authorized to prescribe methods and regulations to determine common reservoirs and allocations of production. Alaska does not object to the Secretary's promulgation of methods and regulations to guide him in negotiating with the states. However, the determination of the parameters of reservoirs and the allocation of production should not be unilaterally made by the Secretary. There is an established body of case law and procedure to follow when parties are seeking agreement on proper allocation.

b. Legislation should protect against injunctions on leasing, exploration or production on the basis of disputes arising from the legislation. There is no evidence on the basis of past litigation that this provision is necessary. To date, courts have generally viewed the escrow account as adequate protection in the face of an 8(g) dispute over distribution of revenues. If the suggested provision is enacted, it should not preclude injunctive relief when a dispute is also based on other statutory considerations, such as environmental concerns.

c. Fifty percent pass through of funds to local governments which are adjacent to leased areas. Alaska opposes this provision. It is up to a state, not the federal government, to determine the proper distribution of 8(g) revenues within that state. In many cases, a state may have already put into place mechanisms to deal with 8(g) development impacts. This provision would be both unnecessary and obstructive of that process, and would seriously infringe upon state sovereignty.

d. All funds collected by the Federal Government to be shared with States should be kept in an interest bearing account. The Department of Treasury is to determine the specifics regarding accounting. We agree that the money should be placed in an interest bearing account. To the extent that Treasury determines the accounting specifics, the Department should be required to do so in keeping with accepted accounting practice. The states must retain the usual capacity to periodically audit 8(g) accounting records.

5. Information Sharing. One issue that was not raised in the Interior outline, but is of particular importance to Alaska, is the ability to receive adequate information from Interior derived from areas immediately adjacent to the 8(g) zone. To date, Interior has supplied data derived from the 8(g) zone itself. However, the Department has been unwilling to supply information derived from areas outside the 8(g) zone, even though Interior's representatives have conceded that this

information is necessary to a geological analysis of the 8(g) zone. The states have an excellent record of maintaining the confidentiality of this type of information. Because Interior has applied an unduly restrictive interpretation of 8(g) information-sharing requirements, Alaska has had to make costly expenditures to obtain information that, under a reasonable interpretation of the statute, should have been supplied to the State. We will be seeking clarification of the 8(g) language to make it clear that states are entitled to this type of information.

COMPARISON OF ESTIMATED TOTAL 8(g) REVENUES WITH ESCROWED 8(g) REVENUES
AS OF MARCH 31, 1985

	BONUSES	RENTS	ROYALTIES	INTEREST	TOTAL
Total 8(g) Revenues Actually Collected	5,074,958,736	12,168,542	182,298,415	2,430,194,832	7,699,620,525
Escrowed 8(g) Revenues in Treasury Account	3,712,757,841	12,168,542	182,298,415	1,893,275,094	5,800,499,892
Difference Between Total and Escrowed 8(g) Rev.	1,362,200,895	0.00	0.00	536,919,738	1,899,120,633

COMPARISON OF ALASKA ESTIMATED TOTAL 8(g) REVENUES AND ESCROW 8(g) REVENUES
AS OF MARCH 31, 1985

	BONUSES	RENTS	ROYALTIES	INTEREST	TOTAL
Total 8(g) Revenues Actually Collected	532,628,020	2,024,228	0.00	98,183,870	632,836,118
Escrowed 8(g) Revenues in Treasury Account	133,854,480	2,024,228	0.00	27,475,181	163,353,889
Difference Between Total and Escrowed 8(g) Rev.	398,773,540	0.00	0.00	70,708,689	469,482,229

NOTE: All figures used are subject to verification. Figures used to estimate total 8(g) revenues and escrowed revenues for all states were developed by consultants employed by the State. Although the 3/31/85 escrow account figures from MMS apparently did not reflect a proration of rents, it appears that MMS may now be proposing to "adjust" the escrowed rents figure to reflect proration. The State and MMS are currently seeking to reach agreement on applicable figures.

PROPOSED AMENDMENT TO SECTION 8(g)

Sec. 1. Section 8(g) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(g)) is amended to read as follows:

"(g) Leasing of lands within three miles of seaward boundaries of coastal States

"(1) At the time of soliciting nominations for the leasing of lands within three miles of the seaward boundary of any coastal State, and subsequently as new information is obtained or developed, the Secretary shall, in addition to the information required by section 1352 of this Title, provide the Governor of such State -

(A) an identification and schedule of the areas and regions proposed to be offered for leasing;

(B) all information from all sources concerning the geographical, geological, and ecological characteristics of such regions;

(C) an estimate of the oil and gas reserves in the areas proposed for leasing; and

(D) an identification of any potentially hydrocarbon-bearing area or areas [~~field, geological structure, or trap~~] located wholly or partially within three miles of the seaward boundary of such coastal State, including, where such potentially hydrocarbon-bearing area [~~field, geological structure, or trap~~] lies partially within and partially beyond the area within three miles of the seaward boundary of such coastal State, all information relating to the entire potentially hydrocarbon-bearing area [~~field, geological structure or trap~~].

The confidentiality provisions of section 1352 of this Title shall apply to all information provided under this paragraph.

"(2) Notwithstanding any other provision of this subchapter, the Secretary shall deposit into a separate account in the Treasury of the United States all bonuses, rents, and royalties generated by any lease of any federal tract which lies wholly or partially within three miles of the seaward boundary of any coastal State. Within 30 days of the end of each calendar quarter, the Secretary shall transmit to such coastal State 37 1/2 percent of those revenues, together with all accrued interest. The balance of the bonus and rent revenue shall be transmitted simultaneously to the miscellaneous receipts account of the United States Treasury, but the balance of the royalty revenues shall be held until divided and distributed in accordance with paragraphs (3) and (4) of this subsection.

"(3) Each coastal State shall have an additional claim for drainage of its hydrocarbon resources against the remaining federal revenues from lease tracts wholly or partially within three miles of the seaward boundary of such State. Whenever the Secretary or the Governor of a coastal State determines that a common potentially hydrocarbon-bearing area may underlie the federal and state boundary, the Secretary or the Governor shall notify the other party in writing of his determination and the Secretary shall provide to the Governor notice of the current and projected status of the tract or tracts containing the potentially common hydrocarbon-bearing area.

If the Secretary has leased or intends to lease such tract or tracts, the Secretary and the Governor of the coastal State shall enter into an agreement to divide the revenues from production of any potentially common hydrocarbon-bearing area, by unitization or other royalty sharing agreement, so as to compensate the coastal State for the value of its hydrocarbons originally in place under State lands. Where the Secretary and the Governor are unable to agree either as to the existence of a common potentially hydrocarbon-bearing area or the method of compensating the State, the matter shall be decided by arbitration. For that purpose, the Secretary and the Governor shall each select a representative; in turn, the two representatives shall agree upon an independent and knowledgeable third party who shall be empowered to resolve any disputes as to the terms of the agreement. All royalties generated by a lease wholly or partially within three miles of the seaward boundary of a coastal State containing a potentially common hydrocarbon-bearing area, exclusive of the potentially common hydrocarbon-bearing area, exclusive of the 37 1/2 percent distributed to the coastal State under paragraph (2) above, shall remain in escrow in the separate Treasury account until such time as the agreement contemplated by this paragraph shall be signed by both the Secretary and the Governor. Thereafter, distribution of the remaining 62 1/2 percent of the royalties from said lease shall be as provided by the terms of the agreement.

"(4) When the Secretary offers for lease a tract which lies wholly or partially within three miles of the seaward boundary of two or more states, the revenues from such tract shall be deposited in a specially designated separate account segregated from other revenues generated by leases within the three mile zone. The segregated revenues shall be divided as otherwise provided by this Act except that the revenues attributable to such tract or tracts shall be first apportioned between the states on the basis of the portion of that tract which lies within three miles of the seaward boundary of each state.

Sec. 2. The Secretary shall distribute within sixty days of the effective date of this Act to each coastal State all funds deposited and held in separate account in the Treasury of the United States under section 8(g)(4) of the Outer Continental Shelf Lands Act Amendments of 1978 (43 U.S.C. 1337(g)(4)) in a manner which provides that each coastal State for which reserves were deposited in such account shall receive 37 1/2 percent of the amount which should or would have been deposited in such account through the date of enactment of this Act under the terms of section 8(g)(2) and 9(g)(4) as herein provided. The Secretary shall also distribute, in accordance with the process established by section 8(g)(3) as herein provided, to each coastal State compensation for any drainage of State hydrocarbon resources by federal lessees through the date of enactment of this Act. The remaining balance of the funds in that account shall be deposited into the miscellaneous receipts account of the United States Treasury.

Sec. 3. Section 2(b) of the Submerged Lands Act. (43 U.S.C. 1301(b)) is amended by inserting before the semi-colon at the end of the subsection the following: ", except that any boundary between a State and the United States under this Act which has been or is hereafter fixed by coordinates under a final decree of the United States Supreme Court shall remain immobilized at the coordinates provided under such decree and shall not be ambulatory".

Sec. 4. Upon a final determination by a court of competent jurisdiction that the United States is entitled to any revenues which have been placed in escrow pursuant to section 7 of the Outer Continental Shelf Lands Act, the Secretary shall:

(a) distribute to the affected coastal State an amount equivalent to the State's entitlement under section 8(g)(2) as herein provided, and

(b) establish and deposit into a separate account in the Treasury of the United States an amount equivalent to 62 1/2 percent of royalties and accrued interest from lease tracts wholly or partially within three miles of the seaward boundary of such coastal State as established by the court decree, said royalties and interest to be held in the account until divided and distributed in accordance with section 8(g)(3) as herein provided.

OFFICIAL COMMITTEE FILE

State of California
SACRAMENTO

JANANNE SHARPLESS
Secretary of
Environmental Affairs

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
[illegible]
SEP 23 1985
[illegible]
WASHINGTON, D.C. 20510

September 17, 1985

Hon. James McClure, Chairman
Senate Committee on Energy and Natural Resources
Senator Dirksen Office Building
United States Senate
Washington, D.C. 20510

Dear Senator McClure:

I understand that today your committee is discussing the Congressional OCS Moratoria Preliminary Agreement with the Department of the Interior. I am writing to provide you with some information regarding the Deukmejian Administration's preliminary review of this agreement.

We appreciate the efforts by Secretary Hodel and members of the Congressional delegation to resolve the long-standing dispute on the future of energy development off the coast of California. We feel that some agreement on this issue is necessary in order to achieve a reasonable balance between the nation's need for energy with California's interest in preserving its unique coastline. We also are aware of the extent of the effort that must go into shaping a final compromise that will be acceptable to the many interests with a stake in this issue.

As I know you are aware, Secretary Hodel recently announced that he now believes that the details of the Preliminary Agreement are not in the best interests of the nation as a whole. He also indicated that there still is a need to arrive at some sort of agreement to replace the current moratoria off portions of California, but that such an agreement should be developed through an approach emphasizing cooperation and consensus among all the interests affected by offshore energy development.

As Interior continues to seek a solution to the issue of leasing moratoria, we intend to work with them in order to ensure that California's interests are fully protected in the final details of any agreement. Specifically, we believe that any final proposal from Interior should reflect three considerations.

First, a final agreement should not be based solely on political considerations. The final details must take into account a broader range of factors, including the potential contributions to the nation's energy supplies, environmental conditions in the affected areas, implications to the local economies, and the potential for impacts to air quality, public services, and other onshore resources.

Second, this Administration does not believe that moratoria are an effective way to resolve problems associated with offshore drilling. This approach is a rigid, "all or nothing" reaction that does not provide any opportunity for compromise. It also does not provide any environmental protections, and merely delays the hard decisions on these measures. Such delays ensure that if moratoria are ever lifted in an energy emergency, there will be no guarantee that the subsequent development will incorporate adequate environmental protections.

Instead of moratoria, Governor Deukmejian has long advocated a detailed, area by area analysis of offshore proposals. This approach allows us to focus the debates on offshore development only to those areas where the energy reserves appear to be sufficiently large, to refine such areas to where energy development can proceed safely and with adequate environmental safeguards, and finally to identify areas that should be off limits to drilling due to the presence of environmentally sensitive or unique resources. This type of approach also provides the opportunity for consultation with the full range of affected interests, and the use of cooperative measures that are necessary to achieving a proper balance between meeting the nation's energy needs and preserving our coastal environment.

Finally, a final agreement has to be evaluated from the standpoint of the entire OCS Leasing Program. Our initial comments last September on the new 5-Year Leasing Program stressed that the Program should be focussed on those areas that are appropriate for leasing within the 5-year period, and delete those areas which will not be considered due to environmental constraints and multiple use requirements. Secretary Hodel's recent comments promising to delete certain environmentally sensitive areas in the moratoria tracts appear to respond to this recommendation, but we will not have the full information on Interior's proposed activities off California until the Proposed 5-Year Leasing Program is released later this or early next year.

I appreciate this opportunity to present some of our preliminary thoughts on the proposed agreement.

Sincerely,

Jananne Sharpless

Jananne Sharpless
Secretary of Environmental
Affairs

cc: Governor's Office

OFFICIAL COMMITTEE FILE
PLEASE RETURN

State of Louisiana
DEPARTMENT OF JUSTICE
Baton Rouge
70804

WILLIAM J. GUSTE, JR.
ATTORNEY GENERAL

September 19, 1985

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
OCT 1 1985
WASHINGTON, D.C. 20510

Honorable Donald P. Hodel
Secretary
United States Department of
 the Interior
18th & C Street, N.W.
Washington, D.C. 20240

Dear Secretary Hodel:

This is to protest your recent comments and tentative agreement with a few of California's Congressmen to put most of that state's offshore oil and gas lease acreage off limits until the year 2000.

We here in Louisiana were shocked to read that you, as Secretary of the Interior, could support any such proposition in the very face of our country's declining oil and gas reserves. For over thirty years, the gulf coast states and particularly, Louisiana, have borne the brunt of the most intensive petroleum activity in the Nation's coastal and offshore areas. Louisiana is both a national leader and a world leader in Outer Continental Shelf production, currently producing eighty-six (86%) percent of our Nation's OCS oil and eighty-two (82%) percent of its OCS gas. Historically, as will be shown hereafter, Louisiana and the gulf coast states have played a much greater production role.

These statistics are impressive and we here in Louisiana are proud to have done our part in assisting the Nation along a path of achieving energy independence, a goal set by Congress and the last several presidents. Within the last decade, giant discoveries in Prudhoe Bay in Alaska have made significant contributions to our Nation's energy reserves, but total oil reserves have declined by almost a third since the early 1970's. California's contributions have been rather meager in comparison to Gulf of Mexico production and Alaska production and the four-year-old congressional moratorium which expires on September 30 has certainly not helped with the development of new reserves.

The Gulf of Mexico basin has proven to be one of the richest oil and gas areas in the world and certainly in this country, but it is for the most part developed and it is not likely that huge new fields will be discovered before its decline. Therefore, this valuable energy resource is on the wane and new resources need to be discovered. We believe California and the other coastal states should now come forward and do their part in support of the Nation's needs and the continued development of national energy independence, for we are currently importing about one-third of our energy from foreign countries at a cost of approximately $1 billion per week. According to recent newspaper accounts, the United States has paid out nearly $600 billion to foreign countries for oil imports since 1970.

Congress has declared that:

* * *

> (3) the outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs; [43 U.S.C. 1332(3)]

I would also remind you that as Secretary of the Interior, federal law requires that you "shall select the timing and location of leasing, to the maximum extent practicable, so as to obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone." [42 U.S.C. 1344(a)(3)]

In reviewing a recap of lease sale statistics entitled "Outer Continental Shelf Lease Sales Statistics - Minerals Management Service - Gulf of Mexico OCS Region," dated January 28, 1983, we note that in lease sales which occurred between 1954 and 1978, Gulf of Mexico lease sales comprised 80% of the total (40 out of 50 sales).

For the period from 1978 through 1982, Gulf of Mexico lease sales comprised 43.5% of the total (10 out of 23 sales).

For the entire period of time (1954 through 1982), Gulf of Mexico lease sales comprised 76% of the total (50 out of 73 sales).

We view this historical leasing pattern as a grossly disproportionate sharing of developmental benefits and environmental risks for the Gulf of Mexico Region (See 43 U.S.C. 1334(2)(B). Clearly, this selection of the timing and location of leasing results is a highly improper balance "between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone" of the Gulf of Mexico Region, as contrasted with other regions.

As a consequence, Louisiana and the entire Gulf of Mexico Region are bearing a grossly disproportionate share of leasing, exploration, and developmental activity, contrary to the Outer Continental Shelf Lands Act, as amended in 1978.

Actual production statistics confirm this disproportionate treatment and show that from 1954 through 1981, offshore Louisiana produced 97% of all U.S. OCS oil and 96% of all U.S. OCS natural gas. For 1981, the Gulf of Mexico Region produced 99.8% of all U.S. OCS natural gas, with 84.9% of the Gulf production coming from offshore Louisiana (See "OCS Statistics - U.S. Geological Survey - 1981 - Restin, Virginia").

For these reasons, we urge that you reconsider your views about limiting or delaying Outer Continental Shelf lease sales for any region of the country until industry can explore for and prove up additional oil and gas reserves sufficient to restore the country to its reserve posture as of 1970.

Very truly yours,

William Guste

WILLIAM J. GUSTE, JR.
Attorney General

GLK/jb

cc: Senator J. Bennett Johnston
United States Senator

Senator Russell B. Long
United States Senator

Hon. Robert L. Livingston, M.C.
United States Representative

Hon. Corinne C. Boggs, M.C.
United States Representative

Hon. W. J. Tauzin, M.C.
United States Representative

Hon. Buddy Roemer, M.C.
United States Representative

Hon. Thomas J. Huckaby, M.C.
United States Representative

Hon. W. Henson Moore, M.C.
United States Representative

Hon. John B. Breaux, M.C.
United States Representative

Hon. Cathy Long, M.C.
United States Representative

Senate Energy and Natural Resources Committee
ATTENTION: Chairman James McClure

House Interior and Insular Affairs Committee
ATTENTION: Chairman Morris K. Udall

House Merchant Marine and Fisheries Committee
ATTENTION: Chairman Walter B. Jones

Mr. John S. Herrington
Energy Secretary
United States Department of Energy

PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS, INCORPORATED

3000 BRIDGEWAY BUILDING, SUITE 104 • (415) 332-5080
P.O. BOX 1626, SAUSALITO, CA 94966, USA

TESTIMONY OF

W.F. "ZEKE" GRADER, JR.
EXECUTIVE DIRECTOR

PACIFIC COAST FEDERATION
OF FISHERMEN'S ASSOCIATIONS

TO THE

U.S. SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES

REGARDING THE

PRELIMINARY CALIFORNIA
OCS AGREEMENT

17 September 1985

STEWARDS OF THE FISHERIES

Mr. Chairman, members of the Committee, thank you for the opportunity to present testimony on the preliminary agreement on California offshore oil and gas exploration and development on the federal OCS that was reached by representatives of the California Congressional Delegation and the Secretary of the Interior on 16 July and breached by the Secretary on 10 September.

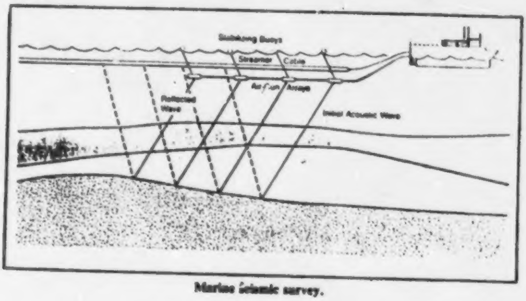
The Pacific Coast Federation of Fishermen's Associations (PCFFA) is made up of 22 commercial fishermen's organizations in California and Oregon. Through it's member associations, PCFFA represents fishermen in a variety of fisheries, including those for salmon, crab, shrimp, swordfish, shark, rockfish, abalone, albacore, lobster, halibut, sablefish, sea cucumber, and herring. PCFFA is the largest commercial fishermen's organization on the west coast; it and the United Fishermen of Alaska are the two largest U.S. fishermen's organizations on the Pacific. Among PCFFA's members are the Commercial Fishermen of Santa Barbara, Inc., whose members have experienced offshore oil development, and the Humboldt Fishermen's Marketing Association, whose members would have been most affected by the preliminary agreement.

In my testimony I wish to touch on two areas related to the preliminary agreement. The first is the agreement itself and how it might have affected California's fisheries. The second is the consultation process, or lack thereof.

Before addressing those two issues however, I wish to touch on some of the problems fishermen face with offshore oil and gas exploration and development. The problems encountered by the fishing industry from OCS activity can be listed under the following categories:

1) Geophysical Surveys;
2) Loss of Fishing Grounds;
3) Pollution; and
4) Competition for On-Shore Support Facilities.

Geophysical Surveys or seismic surveys are used by the oil companies to study the geologic formation of the ocean bottom to determine areas where oil or gas are likely to be found. Offshore California, most of the geophysical surveys are done using air guns emitting pulses from streamers towed behing a vessel. Other surveys use "sparkers" emitting an elactical pulse,or water guns used much like the air guns.



Marine seismic survey.

Source: National Fisherman, August 1985

The first problem associated with geophysical surveys is physical conflict. The streamers can, and have, cut-off bouys attached to fixed fishing gear resulting in the loss of traps and set nets. The streamers can also tangle with troll lines when a geophysical vessel is operating in a fleet of salmon vessels. With proper notification of planned operations by a geophysical vessel (the present notification process in California appears to be working satisfactorily) and with coordination with the fishing fleet, most of the physical conflicts fishermen have with geophysical vessels can be eliminated.

A second problem caused by geophysical vessels is the "spooking" or fish dispersal. Fishermen have found that when a geophysical vessel is operating in an area, catches go down and fish disappear. This phenomenon observed by fishermen has been verified by studies conducted in the North Sea by the Norweigan firm of ELAB for a Norweigan oil company. The problem of fish dispersal to fishermen can be diminished if there is careful coordination between geophysical contractors, mindful of fishing seasons, and fishermen. In the Santa Barbara Channel, one of the greatest aids fishermen and geophysical contractors have in eliminating conflicts is the "Oil and Gas Project Newsletter for Fishermen and Offshore Operators" published by the University of California's Marine Advisory Program. Newsletters of this type, in my opinion, should be established where offshore oil and gas development is ongoing or proposed.

The third problem, or concern, with geophysical surveys is the extent of damage that may be resulting to fish and shellfish resources, particularly the egg and larval stages, from the pulses emitted by the geophysical vessel. Funding for studies on the effects of geophysical surveys on fish and shellfish is needed. Such studies would be useful in determining the extent of the affects on various species, the lifestages most vulnerable, and what mitigation measures, if any, that can be taken.

Loss of Fishing Grounds is the second category of problems faced by fishermen from OCS development. The losses are associated with the physical space the rigs take up together with their cables and anchors and the "safety zone" around each rig, and debris, pipelines and old well heads on the bottom that can destroy fishing gear.

In the Santa Barbara Channel is is estimated by fishermen that over 40% of the trawl grounds have been lost. At a recent conference (28 June) held in Aberdeen, Scotland, "Fisheries and Offshore Oil: Is it a Mix?", John Goodlad of the Shetland Fishermen's Association charged that the exclusion of vessels from productive North Sea grounds by offshore oil devlopment may have cost fishermen 60 million pounds stirling. The loss to the Shetland Fishermen's Association alone, according to Mr. Goodlad, is nearly 5½ million pounds since 1975.

Source:
Fishing News,
19 July 1985

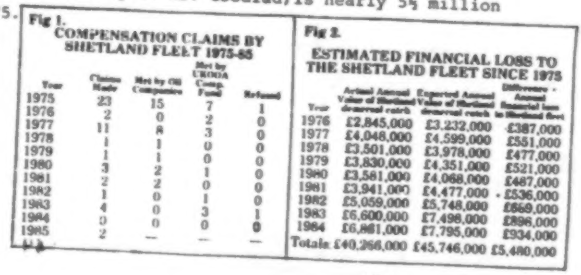


Fig 1.

COMPENSATION CLAIMS BY SHETLAND FLEET 1975-85

Year	Claims Made	Met by Oil Companies	Met by UKOOA Comp. Fund	Refused
1975	23	15	7	1
1976	2	0	2	0
1977	11	8	3	0
1978	1	1	0	0
1979	1	1	0	0
1980	3	2	1	0
1981	2	2	0	0
1982	1	0	1	0
1983	4	0	3	1
1984	0	0	0	0
1985	2	—	—	—

Fig 2.

ESTIMATED FINANCIAL LOSS TO THE SHETLAND FLEET SINCE 1975

Year	Actual Annual Value of Shetland demersal catch	Expected Annual Value of Shetland demersal catch	Difference - Annual financial loss to Shetland fleet
1976	£2,845,000	£3,232,000	£387,000
1977	£4,048,000	£4,599,000	£551,000
1978	£3,501,000	£3,978,000	£477,000
1979	£3,830,000	£4,351,000	£521,000
1980	£3,581,000	£4,068,000	£487,000
1981	£3,941,000	£4,477,000	£536,000
1982	£5,059,000	£5,748,000	£689,000
1983	£6,600,000	£7,498,000	£898,000
1984	£6,861,000	£7,795,000	£934,000
Totals	£40,266,000	£45,746,000	£5,480,000

The losses of fishing gear from offshore oil development are to be reimbursed through the Fishermen's Contingency Fund. Since 1978 (effectively 1980), some $1.2 million in claims have been paid to fishermen for gear losses associated with OCS activities. Of that, approximately $50,000 has been paid to California fishermen for 9 claims, or approximately 3 to 5% of the total fund. The balance has gone to pay claims in the Gulf.

The Contingency Fund has helped fishermen recover losses, but they still would have been better off had the incident leading to the gear loss not occurred. Loss of fishing time, paperwork, delays getting reimbursed all work against fishermen. The delays have gotten worse as inadequate funds are appropriated. Presently there are 43 claims waiting to be paid totalling $173,000 that cannot be paid until the supplemental amount provided the Fund for FY 1985 is cleared through OMB and NOAA. For 1986, it is estimated there will be $800,000 in claims, but each year the appropriation to the Fishermen's Contingency Fund has gotten smaller.

The losses of fishing area by physical displacement of grounds by rigs, drilling ships, cables and anchors, however are not compensated. And, the deeper the waters the drilling takes place in, the more area that is lost to fishermen as anchors and their cables have to be extended outward from the platforms greater distances.

Although it is claimed that the rigs create an artificial reef that attracts fish (as do sewage outfalls), this is of little benefit to trawlers , who cannot operate near the rigs because of cables and anchors, or to other commercial fishermen who must taty out of the "safety zone" surrounding the rigs. Even charter boat captains I have talked with from southern California complain that the rigs are of little value to them as reefs, since their vessels are not permitted to fish near the rigs.

Even if fishermen were allowed access to the fishing areas around the rigs, the safety of the fish that may be found around each rig would have to be tested to ensure it was safe to market. In at least one instance in the Santa Barbara Channel, every form of life found under a rig was dead following the disposal of drilling muds. The level of oil in the water around the rigs has been found to be much higher than in surrounding waters, due to the oil in the drill muds. And, there is concern for some of the other compounds, such as the heavy metals, used in the muds that may have chronic affects on fish and shellfish resources near the rigs. Santa Barbara fishermen have dismissed the press reports about commercial ventures raising shellfish off the platforms as a press relations gimmick.

Pollution from the OCS activity has three main sources. They are oil spills, the discharge of oil sludge from tankers, and drilling muds. Recent reports from Santa Barbara hook-and-line fishermen indicate it has taken over 8 months for fish to begin returning to reefs that had drill muds dumped on them. And, as I mentioned above, the drill muds dumped beneath a rig in the Santa Barbara Channel, killed everything under the rig, including species found on top of the muds.

In the North Sea, a report by J.M. Davies of the DAFS Marine Laboratory in Aberdeen, Scotland has found that drilling muds and cuttings are the largest source of oil pollution in the North Sea. According to that report, zooplankton, which fish larvae feed on, are affected as far away as one to two kilometers from the drill mud dump sites.

TABLE 1. ESTIMATE OF ANNUAL UK OIL INPUT TO THE NORTH SEA FOR 1983 (tonnes)

Rivers	2,500
Land run off	4,000
Coastal Refineries	1,750
Oil terminal and reception facilities	500
Sewage sludge	3,500
Other industrial	3,150
Atmospheric	8,500
Drilling and mud cuttings	18,000
Production water	1,600
	43,500

Source: Fishing News, 28 June 1985

Pollution is a concern to our members not only because of the fear of direct fish kills, but also for public health reasons. Fish and health is part of a nation-wide fish promotion theme. If high levels of hydrocarbons are found in fish, as in the case of Striped Bass in San Francisco Bay, or high levels of heavy metals (from drilling muds) are found, how can the fishing industry promote fish as a health food?

Competition for On-Shore Support Facilities is the last in the four categories of problem areas fishermen have with OCS development. Fishermen in Scotland have reported whole fishing communities changed with the onsalught of offshore oil as the historic fishing industry in those communities was displaced by offshore oil crew and supply vessels.

In California, since the passage of the California Coastal Act, commercial fishing facilities within the coastal zone are to be protected and, where feasible, upgraded. This policy in the California Act is important to the fishing industry which, prior to the passage of the Act, had been forced out of many areas for recreational, office and housing developments. Over the past 10 years there has been considerable progress reversing this trend. New marinas have been built for commercial fishing boats at Eureka, Bodega Bay and Channel Islands. New facilities have been opened in Santa Cruz, Morro Bay and San Diego. Many of the existing commercial fishing facilities have been protected from efforts to convert them to pleasure boat, office or other non-coastal dependent uses.

Without careful planning however, the gains made in California to protect and build new facilities for the commercial fishing fleet could instead be lost to fleets of supply and crew boats serving the offshore oil industry as happened in the North Sea.

The Preliminary Agreement. There are two basic problems I saw with the agreement reached by the Secretary and the members of the California Congressional Delegation. The first is that the area porposed for development in the Eel River Basin contains some of the Pacific Coast's richest fishing areas. Second, the area proposed for drilling in the Santa Maria Basin could affect the range of the southern sea otter, which is on the threatened species list.

Within the 99 tracts proposed for leasing in the Eel River Basin are some of California's most productive fishing grounds. An estimated 50% of the California groundfish catch is harvested between Punta Gorda and Trinidad Head. It is an important Dungeness Crab nursery and fishing area, and Eel River chinook salmon stocks pass through this area. The Eel River, the same length as the Klamath River, provides spawning and rearing habitat for California's largest remaining run of naturally-spawning salmon. If the agreement had met with tentative approval, we would have sought to have three near shore tracts deleted to protect the Dungeness Crab fishery and perhaps two or three other tracts to protect critical Petrale and Dover Sole grounds. Minor modifications, such as these, I understood were acceptable under the terms of the preliminary agreement.

To provide you with an understanding of the value of the Eel River Basin fisheries, in 1980 the California Department of Fish & Game analyzed the then-proposed OCS Lease Sale 53 and estimated that an average of 10 million pounds of fish comes from the affected area annually. Translating that into gallons of oil - it takes approximately 0.53 gallons of oil to produce one kilogram of fish protein, while it takes 8.7 gallons of oil to produce one kilogram of milk protein and 26.6 gallons of oil for every kilogram of beef. At this rate it would take 96.8 million gallons of oil to replace the fishery that is produced from this area. If you add to this figure the 1.5 million to 6 million pounds of crab annaually produced in this area and up to one million pounds of salmon produced out of this area and adjacent state waters, the madnitude of food production out of the Eel River Basin is even more substantial.

In the Santa Maria Basin, had the preliminary agreement met tentative approval, my suggestion would have been to move the tracts further south to protect the range of the southern sea otter. As you may be aware, central California's near shore halibut trammel net fishery has all but been eliminated in order to protect the sea otter. It would be ironic now that offshore oil, and even greater threat to otter populations according to Friends of the Sea Otter, would then be allowed within the range.

I was also concerned that the proposal for the tracts in the Santa Maria basin within the otter range would lead the Department of the Interior, in order to protect the otter from offshore oil, to step up it's efforts to translocate otters to San Nicolas Island. Such a translocation would eliminate the valuable commercial shellfish and near shore net fisheries at that island.

One other problem with the agreement that many of PCFFA's members had is that they do not trust the Department of the Interior. Interior is responsible for much of the destruction of California's salmon fishery as a result of the construction and operation of it's massive water development - the Central Valley Project. It is also the Department of Interior, fishermen hold responsible - the Bureau of Reclamation aided and abetted by the Bureau of Indian Affairs and the U.S. Fish & Wildlife Service - for the destruction of the salmon runs of the Klamath and Trinity Rivers and the resulting total closure this year of the commercial salmon fishery off northern California and southern Oregon.

Some of the PCFFA members opposed the preliminary agreement; they wanted no new offshore drilling in the area covered by the present moratorium. I think, however, that the attitude of most of our members was best reflected in the statement made at the Eureka hearing on the agreement, when Mitch Farro of the Humboldt Fishermen's Marketing Association stated, "we don't like the agreement, but we're not going to oppose it. Anything else that we might get would be far worse".

The two main advantages I saw to the proposed agreement were: 1) the 15 year moratorium on all leasing of those tracts under the current one-year moratorium not included in the 150 tracts; and 2) the use of COST (Continental Off-Structure Stratgraphic Test) wells to inventory California's offshore oil reserves. The COST wells, I think, are preferable to the geophysical surveys to inventory the oil and gas potential of the areas not leased.

As far as the 15 year moratorium is concerned, it could provide the time needed for necessary studies, resource assessments, and planning. I also want to point out that California presently contributes over 10% of U.S. domestic crude. Leasing and development of high-potential coastal waters is proceeding at a rapid pace in California, with a 500% increase in oil production anticipated over the next few years from leases already granted. This will make California one of the largest producers of OCS oil in the nation. California already produces more oil than at least three OPEC nations. California is doing it's share.

Consultation. There is, as you know, no requirement in the law that the Department of the Interior consult with the fishing industry on proposed lease sales. The statutory requirement for consultation is with state government. However, to better facilitate OCS devleopment, it would appear reasonable for Interior to consult with affected fishing groups and others with an interest or concern with OCS development. That has not happened.

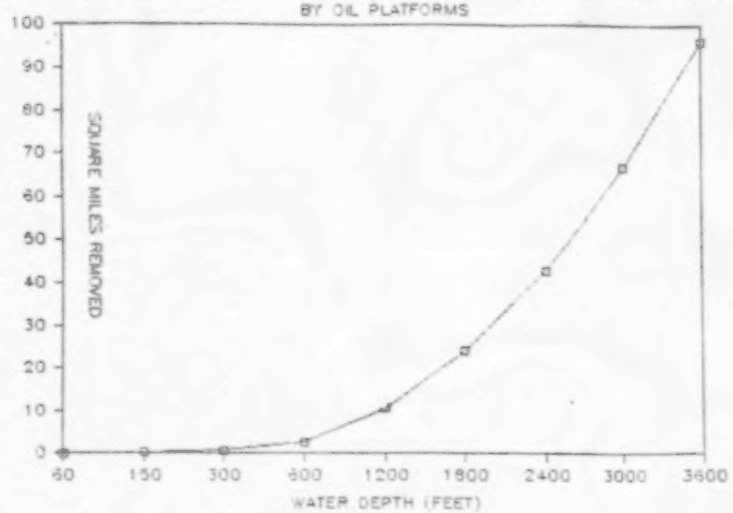
The consultation, such as it has been, has been limited to the appointment of one Santa Barbara fisherman on the Minerals Management Service's Regional Technical Working Group, and discussions with MMS officials through the Fisheries-OCS Liason Office in Santa Barbara and it's spin-off committees. Interior has not come to any of the major fishing organizations, whose members would be affected by OCS development, seeking their comments or concerns over proposed offshore development. It has not named representatives from the fishing industry, that would be affected by OCS development, to it's OCS Policy Committee. It is my opinion that Interior has largely sought to surround itself with sycophants rather than seek out the various groups with concerns over offshore oil, whether it be local governments, environmentalists, or the fishing industry.

To conclude let me say that the consultation process needs improvement if many of the problems caused by offshore oil development are to be minimized or successfully mitigated, and if some of the problems inherent in an overall benefical agreement to California are to be eliminated.

Thank you.

MINIMUM AREA REMOVED FROM TRAWLING

BY OIL PLATFORMS



WATER DEPTH FEET	GUY WIRE LENGTH	ANCHOR TO PLATFORM DISTANCE	AREA REMOVED BY PLATFORM SQUARE MILES
60.00	420.00	415.69	0.03
150.00	1050.00	1039.23	0.17
300.00	2100.00	2078.46	0.67
600.00	4200.00	4156.92	2.68
1200.00	8400.00	8313.84	10.71
1800.00	12600.00	12470.77	24.09
2400.00	16800.00	16627.69	42.82
3000.00	21000.00	20784.61	66.91
3600.00	25200.00	24941.53	96.35

Guy Wire length is
7:1 with depth of
water
(Drawing not to scale)

Prepared by Fishermen's Marketing Association
Eureka, California